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ABSTRACT

These appendixes contain detailed information about the existing audiovisual material exchanges which served as the basis for the analysis contained in the companion report. Descriptions of the objectives, structure, financing and services of the following national and international organizations are included: (1) Educational Resources Information Center (ERIC); (2) Dokumentationsring Padagogik (DOPAED), West Germany; (3) the Data Bank Omstitut Fur Film Und Bild in Wissenschaft Und Uterricht (FWU), West Germany; (4) Data Bank with Direct Access of the University of Quebec (BADADUQ); (5) the proposed Didactics Library of the University of Quebec; (6) National Office for Technical Development, Hungary; (7) Council of Education Technology (CET), United Kingdom; (8) French Office of Modern Educational Techniques (OFRATEME); (9) Eolienne Editions, France; (10) European Documentation and Information System for Education (EUDISED); (11) Association of Universities Partially or Wholly in the French Language (AUPELF); (12) International Council on Teaching Methods (CIME); (13) European Union of Radio Broadcasting; and (14) Nordisk Voksen-Undervisningsprosjekt (NOVU). In addition, exerpts from 1974 reports on national and international disposition toward copyrights and problems posed by medium transfers, dubbings and program duplication are included. A 1975 French study of film library automation is outlined. (KB)

***********************************************************************
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
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ED129297

CENTER OF STUDIES AND REALIZATIONS FOR PERMANENT EDUCATION

(CEREP France)

# MULTINATIONAL EXCHANGE MECHANISMS OF EDUCATIONAL AUDIO-VISUAL MATERIALS

## *APPENDIXES*

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

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R004 082

# E.R.I.C. (U.S.A.)

## ( Educational Resources Information Center )

National system . for the treatment of educational documentation
. for educational information

Created in 1965, by LEE G. BURCHINAL director for the National Center for Educational Communications, into which E.R.I.C. was integrated. It is under the authority of the U.S. Office of Education, Washington D.C.

Sources : - Educational Documentation and information -
Bulletin of the I.B.E.
International Bureau for Education 45 th year n° 178,
Ith trimester 1971.
Article by Mr BURCHINAL pp. 9 à 15.

# 1 - OBJECTIVES

## 1.1 Field of action

### 1.1.1. Goals_and_principles

- to put some order into the growing confusion and mass of educational documentation.

- to guaranty direct access to current and important documents

- to produce interpretative summaries and analytical bibliographies concerning crucial questions in education and to diffuse them.

- facilitate information concerning :

    - the teaching situation
    - the research results
    - the programs for the planification of education

### 1.1.2. Documents_involved :

- more than 50,000 published reports yearly by organizations for the 50 differnt state departments of education and the 18,000 local school districts;

- the publications of professional, private, commercial, public agencies;

- more than 14,00 periodical articles on education in journals and magazines of the English language.

## 1.2 Whom is it mean for :

- for all the American educators belonging to teaching institutions and to professional organizations, in anything concerning education :

    - from kindergarden to college education :
    - adult education :
    - permament education

- for about 300 foreign agencies ( especially in Canada ).

ERIC. thus fills a national need. It is thus meant to benefit the teachers as individuals, as well as educational institutions from the millions of dollars spent on research and development, and to " provide an easy or systematic means of direct access " into the published documents, very abundant and dispersed, almost anarchical.

## 2 - FUNCTIONS

they are informational functions :

- collections / acquisition of documents
- treatment / production
- diffusion / coordination

## 3 - STRUCTURE AND ORGANIZATION

ERIC is a hybridsystem : a the same time centralized (a central service for the coordination ) and decentralized ( operational elements )

It is made up of 5 sections tied together :

1° the ERIC central office :

- defines the politics to the followed :
- assumes the conception
  the accounting of the system
  the coordination
  the evaluation

2° A decentralized network of documentation centers specialized by subject matters :

- They obtain documents from the specialists to complete those obtained through the central service from governmental sources and from big producers of documentation;
- They select those to be diffused ( about 1/3 );
- They analyse them and make summaries with key-words from the ERIC thesaurus.
- They send them to :

3° The Marketing Service, which acts as a go-between, by :

- recieving from the different centers the summaries on standardized cards
- transfering the information on computer tapes

- sending these tapes to the government printing office, through the intermediary of the USOE, for printing and sale of a monthly journal.

This service works through contract with a commercial society ( Leasco Corp ).

4 A service of reproduction of documents : ( taken care of by the Leasco Corp) It sells the complete texts of documents mentioned along with their price in the journal, either on micro-cards or by reproducing the originals.

5 A commercial enterprise ( Crowell, Collier et Macmillan Information Corp ) edits the other monthly ERIC journal, taking care of printing costs and sales.

List of the specialized ERIC centers in 1970

Their numbers are not set, but it is interesting to see in which " fields " or subjects of education they specialize, so as to compare this categorisation with that of DOPAED or of EUDISED, even if ERIC is not directly involved in educational medias.

- Adult education
- Orientation and personnel service
- Handicapped children
- School administration
- Kindergarten education
- Teaching methods and technology
- Gifted children
- College education
- Junior college
- Librarian and informational sciences
- Linguistics
- Reading ( alphabatization )
- Rural and small school education
- Science and mathematics education
- Social science education
- Schools of education
- English education
- Foreign language education
- Tests, examinations and evaluation
- Professional and technical education

## 4 - SERVICES PROVIDED

ERIC is a commercial agency. The following indications are to be completed by up to date information on current prices.

### 4.1 Direct sales

- " Research in education " (RIE) : a monthly journal listing a thousand documents each month ( a 200 word analytical summary, indexation by subject, author, institution etc. )

- " Current Index to Journals in Education " (CISE) : monthly journal which classifies titles appearing in more than 500 periodicals, yearly, completed with a brief commentary and indexed by subject and author.

  The two revues have the same format and are indexed by the same description/subject method borrowed from the ERIC thesaurus.

- The documents of the reproduction service, micro-cards or reproduction of original texts, mentioned only by the RIE.

- Original computer tapes.

### 4.2 Indirect sales

- Depending on the initiative of the specialized centers :
  - diffusion of bulletins ( brief news reports, summaries, selected analytical bibliographies ) distributed regularely to 100,000 education specialists.
  - diffusion of " ERIC items " regularely included in more than 40 specialized journals with a monthly or quarterly circulation of more than 500,000 educators ( reports, analytical bibliographies, summaries of the latest documents obtained, and other items ).
  - A direct service for teachers : personal assistance in gathering information.
  - communication with specialists ; annual conventions or work sessions during regional or national reunions.

- Under the impulse of NCEC :
  - Work sessions for the familiarization with the ERIC system

- liason between ERIC and the State Department of Education as well as the local school districts.

- Organization of computer research in the series of four ERIC research through computer centers financed by the USOE;
  2 centers performing the bulk of the research
  2 centers are direct interaction systems

- Under the impetus of the United States Office of Education which encourages the commercial firms to group those ERIC documents belonging to the public fields so as to provide educators with a specialized service of information.

D O P A E D

Dokumentationsring Pädagogik

West Germany

## A - OBJECTIVES

### 1 - FIELD OF ACTION

### 1.1 Goals and principles

A decentralized network made up of 18 institutions which cooperate on a volontary basis, in analysing educational literature and materials so as to organize and provide information necessary for the development of education, with the long term objective, the setting up of an automated system of documentation. The institutions accepted for membership are those :

- disposing of a sufficient capacity of documentation
- having standards and rules compatible with those of DOPAED
- cooperating with the " Bibliographica Pädagogik ", or carry on projects of documentation in the DOPAED framework
- to whom the Pädagogisches Zentrum of Berlin serves as an organ of coordination.

### 1.2 Materials concerned

for everything involving the problem of media documentation, the institutions, member of DOPAED who should especially be consulted are :

a) The Pädagogisches Zentrum, Berlin

- being the coordinating center
- for its project of documentation of educational programs

b) The Institut Für Film Bild ...., Munich :

- being the producer of between 300 and 400 audio-visual productions yearly, for their catalogue : films, sound movies, fixed film etc...
- being the coordinating center of a network comprising 500 national and regional centers and their productions.

c) The Information Zentrum Für Fremdsprechenforshung, Malburg

- for all the audio-visual means used for language education.
- being the institute which cooperates with ERIC documentation centers, specialized in
  - foreign language education ( New-York )
  - Linguistics ( Washington
  - Educational media and technology ( Stanford )
- being the institute which cooperates with the CILT ( Center for Information on Language Teaching ), at the European and international levels.

d) The International Zentralinstitut Für des Jugend und Bildungs fernsehen, Munich

- for documentation on educational broadcasts for the youth.

### 2 - WHAT NEEDS DOES DOPAED FILL :

- The task of the decentralized network of educational documentation is to fill the needs of the teachers and researchers, and to install a cooperation, previously inexistant, between the hundreds of educational libraries of the country and thus the need for a standardization ( thesaurus, format indexation ).
- it tries to fill the German language zone outside of its borders ( Austria, " German " Switzerland ) no official contacts with the Est Germany has yet been established.

## A - FUNCTIONS

### 1 - HISTORICS:

( toward the development of an automated documentation system )

. 1964 - 1967 :
- preparation of a list of key-words for the indexation
- registration of bibliographical data on perforated cards
- publication of a common general bibliography ( 1966 ) the Bibliographica Pädagogik ( 7 out 16 members contribute to it ).

. 1968 - 1973 : - Elaboration of the thesaurus ( official version : 1973 )

- elaboration of a standardized list of geographical names
- elaboration of the formats for the standardized registration of the bibliographical descriptions.
- growth for the registration of audio-visual medias under the direction of the Institut Für Film und Bild; (1972)
- Adaption of a program ( with the telefunken computer GM BH on TR 4 ) of automation of the libraries to the needs of DOPAED :
  - . registration of bibliographical descriptions serving to make up the Bibliographical Pädagogik
  - . registration of the perforated cards of previous years ( retrospective stock of 60,000 units in 1974 )
  - . preparation of the manuscript of the bibliography
  - . preparation for the files of the Pädagogisches Zentrum
- A current readaptation of the BAS program Version-Padagogisches Zentrum on a bigger computer, Telefunken ( TR 440 ) situated at the mathematics center of Berlin.
- preparation by the Padagogisches Zentrum, to ameliorate its services, by the use of a " retrieval system " in conversational ( program Telefunken TELDOKTR 490 )

. 1973 - 1974 : - Restructurization of the Bibliographica Pädagogik starting from new criterias for the selction of periodicals.

- rearangement of the pedagogik thesaurus
- studies/projects for the growth of the network
- on the national level and in relation to the international level ( EUBISED )

## 2 - SHARING OF TASKS :

2.1 It's the Pädagogisches Zentrum, which assures the tasks of editing, diffusing, coordination and inovation. It is dependent on the city of Berlin and has 3 district services ( a 7 storey building, 170 full time employees of whom 70 are documentalists ( professional librarians ).

a) Administration
b) Library ( 24 employees ) and documentation center ( 13 employees ) who serve all the educational levels-from kindergarten to the university levels as well as vocational schools for Berlin. Its this division that serves as the coordinator for DOPAED.

- It takes care of about 80% of it ( development of the thesaurus, descriptors, standards etc.)

c) a division covering projects unrelated to schools.

d) a division which fulfills the central duties for Berlin : international conferences, interesting projects for the city.

2.2 The documentary tasks of collection, sorting out and indexation are divided up between the differnt members. They are mechanised with the help of perforated cards tape decoders, sorting machines. The tapes comming from the sorting out of articles by these centers are sent to the Pädagogisches Zentrum which reproduces them automatically on grouped tape ( of a different color ), which will be read at the terminal.

## C - FINANCIAL DATA

1 - DOPAED being a volontary association of institutions, each member participates financially, at least in what concerns the tasks of collecting and indexation.

The network has obtained grants : The Volkswagen Foundation has financed ;

- The beginning of the Information Zentrum Für Fremdsprachenforschung and the Internationales Zentralinstitut Für des jugend und Bildungsfersehen around 1964.

- the preparation of the programed Library of Education and its thesaurus by the Pädagogisches Zentrum.

- the adaptation of the software program for automation.

2 - **THE PADAGOGISCHES ZENTRUM IN FACT TAKES CARE OF MOST OF THE EXPENSES :**

Ex : edition of the Bibliographica Padagogik

- According to Doctor SPANGENBERG, the operating costs of the center ammonts to 8 millions D.M. per year.
- Being a center dependent on Berlin but also serving the rest of the country, a contribution of 5.000 D.M. theoretically should be contributed to it by the other institutions in the country, but so far it hasn't happened.
- The center bought the compiet set of the ERIC micro-files ( 6.000 to 7.000 D.M. )
- The price per hour of use for the computer telefunken TR 440 normally costs 2.800 D.M. The center has the right to use it for 20 D.M. an hour, the city is the owner.

# THE DATA BANK

# INSTITUT FÜR FILM UND BILD IN
# WISSENSCHAFT UND UNTERRICHT (FWU) MUNICH

West Germany

Interview with doctor R. MARCZINSKI

## 1 - THE RELATIONS " LIBRARY - DOCUMENTARY SERVICE - ARCHIVES "

( see page 12 of this appendix )

- The library does not interest us in the framework of this study.
- The documentary Service : it produces, for example, the film catalogue " Filme Bildreihen Tonträger " / 1972, which contains 4 500 titles and is manually produced.
- the problems :-of keeping up to date; since 1972, 200 to 300 new materials have been produced, which do not show up progressively in this catalogue

  -of presentation ; according to Doctor MARCZINSKI, this catalogue is far from being the best.
- The "Archives", that is about 1700 film titles, 1100 series of slides, and 650 tapes and records in may 1974 :

  The first project, which was elaborated by the team of Doctor SPANGENBERG in Berlin ( Maschinengeredhte titelaufnahf für Dokumentations projekt im Dokumentation ring Pädagogik ( DOPAED ) - Teil 1 : Literatur + Teil 2 : Techische Medien - 1968 ; 1972, system of documentation of medias ( second part ), has not been applied. To register at the same time " literary " material and " audio-visual " material FWU chose a computer system Control Data - System 2,000. According to the Doctor MARCZINSKI, the categories of descriptors of the medias elaborated in Berlin are incompatible with the computer, and are also incompatible with the bibliographical descriptors. He reminds us however that the Doctor SPANGENBERG is convinced of the opposite.

## 2 - THE DESCRIPTORS OF THE FWU DOCUMENTATION SYSTEM :

( cf. FWU Datenbank - Struktur für SYSTEM 2 000 April ( 1974 )
( Page 8 of this Appendix ).

2.1 Each descriptive element of a medium is broken into little units of information ( 86 catagories among the smallest ).

120 - " Rechte " at the first stage, they are unable to fill this case because their are too many different possible descriptors for it s copyrights. Now they register the dates but they are not yet systematized

130 to 160 : concerning the title

165 to 175 : the editor, name of author, his role ( producer)

180 to 225 : a very large part, according to Doctor MARCZINSKI, is what concerns the classification of the document to the subject matter ( ex. Biology - vertebrates - frogs... )

On this subject, the Doctor MARCZINSKI beleives that the universal documentary classification ( CDU) does not fit the needs for the registration of AVM'S. A study was carried out on this subject by the Center of Documentation of the Defence Ministry; they performed all the possible tests on computer programming using the CDU. The findings are not published, but the conclusion is that this system is too rigid (decimal classification plus a large number of descriptions plus the elements of " retrieval " ) and presents too many problems for automation.

230 to 285 6 categories concerning the name and coordinates of the people or institutions participating in the elaboration of the document, the name of the actors ( " part " ) ..... The 6 following categories give the indications on the length, language, and availability ( free, rent ...)

290 to 295 The summary of the contents comes at the base 250 signals. We can multiply them. 250 x 5,250 x 10,250 x 50,250 x 100. We don't want to reach more than 10 000 signals; above that it would became too expensive.

300 to 310 The category of users to whom the document is originally destined for :

- at the most general level : " pre - school education ", adult education, " university level " etc....

- at the second level : the specialized department, of the university, of the school, of the institute
  example : physics department ).

- at the third level : Age group

315 to 325 : Prizes won or special favors ( example : presentations at festivals ) given to the document. This category thus gives an indication on the quality of the document.

355 to 365 : Where to buy, where to find the material.

## 2.2 Special remarks :

- up to point 225 plus, only the content of the materials are described
- this registration sheet uses between 2 000 and 4 000 signals for the description of one document, literary or audio - visual.

- Each audio-visual center would have available formularies elaborated from this sheet, which they will fill out and send to FWU which will procede to program them into the computer.

- The only German school of educational medias ( television and radio ) - ARD and ZDF - is in the process of adopting the same documentation system as FWU, with whom it will become compatible by the end of 1976.

- Who will decide, and on what criterias, the introduction of a document into the data bank ?

  The Doctor MARCZINSKI speaks of an " indexation commission at the heart of each center specialized in a specific field of education, and whose task would be to signal to the FWU, materials pertinent to education and easily obtainable ( which could be exchanged, rented or bought). But we don't know if this is beyond the DOPAED framework.

- The major problem, concerning the descriptors ( the definition of key words is not a problem ) is brought up by the differences of definitions in eduction. The Doctor MARCKINZKI believes that the categories 180 to 225 form a very good description and should be adopted on the basis of an international agreement. But the time needded to obtain international agreements on however few points, seems to him a major obstacle. The best solution is for a large number of institutions to connect themselves to the FWU system : The Doctor MARCZINSKI reacts violently against the " compatibility " which he believes is unatainable. The problem of the definition of the descriptors is a problem of software which depends on the computer and program chosen. Not being a documentalist he has examined the different software available : Honey well, IBM etc... and chose the one which gave the best results DOPAED is operating since ten years; the project of media documentation of the Pädagogisches Zentrum/FWU, tried and then abandoned by him, dates back to five years; by adapting the opposite method the program elaborated by the Doctor MARCZINSKI bacame operational in two years, end of 1974, and he believes that he needs just one more year to have a complete system (functioning) of media documentation.

## 2.3 Construction of the system :

- In november 1974, the testing phase was completed for the recording of literature as well as media. The biological commission was setting up the indexation of the chosen materials. It is believed that the " chapter " on " biology " will be programed into the computer in the middle of 1975. it will represent 500 document titles on that subject, all of which audio-visual materials.
- The subject most difficult to classify and index will be political science.

  The commission will have the right to reorder the classification of the sections and sub-sections of a general subject ( ex. chemistry ) up to the programming for the computer; from then on it becomes definitive. This work is begun only when 20 to 30 documents are available on one " subject ".

  For the English and the foreign titles, The titles are produced starting from key-words of the ERIC system.
- The central computer is in Holland, FWU using only a terminal (communications are carried out by telephone). This system will serve 520 centers. The Doctor MARCZINSKI believes that it's the best of its kind, along with the one at the University of Texas. At a first phase, only the 14 main CAV's can be plugged into this terminal.
- In november 1974, the FWU had recorded 500 media. The total number of CAV's represent 10,000 to 15,000 titles of AVM's. The use of a computer is economically advantageous starting from 1,000 to 2,000 media. FWU hopes to record the 10,000 to 15,000 titles of audio-visual documents produced in Germany on education.

  The information will come from
  - the FWU
  - the industry (commercial production and distribution)
  - the private institutions but television and radio stations are excluded.

## 3 - THE SYSTEM 2 000 ALSO PRODUCES CATALOGUES, LISTS, AND STATISTICS RESEARCH BY COMPUTER

### 3.1 Examples :

Catalogue:

| | | |
|---|---|---|
| . general catalogue of the FWU : | | |
| Year of production | Type of medium | Title |
| . catalogue of silent films S8, : | | |
| Title | Reference number | Summary |
| . catalogue according to the language : | | |
| Language used | Type of medium | N° of reference |
| . catalogue by alphabetical order | | |
| Title | Field of study | Subject of study<br>Precise point of study |
| . catalogue according to the medium and price | | Title-Price |
| Reference number | Type of medium | |
| . catalogue according to price : (most expensive last) | | |
| Price | Title | Type of medium-field of study |
| . catalogue of technical descriptions | | |
| Type of medium | Title B & W or color | duration/length<br>year of production |

### 3.2 Statistical Studies

### 3.3 Research according to one or several descriptors entered into the computer

Example :

- Titles of all the documents using - 16 m/m film for medium
- Titles of all documents containing two descriptors ; "Etruscan" and "Italy"

## 4 - ELEMENTS OF COSTS EVALUATION

. to put a tilte of literature into a computer :

This costs about 50 D.M. (30 D.M. for personnel and 20 D.M. for the costs of machines). The average time for recording a title is four weeks. It can be done in one week, but this would not be economically advantageous because of corrections which would have to be made. Thus, it takes 15 days to 2 month.

- To record an AVM title :

Although 1,532 signals are needed to manipulate a literature title, 6.000 are needed for an AVM title. This costs around 200 DM.

- Help from the German government :

It amounts to 3 millions DM for 5 years. Officially, the operation began in July 1974.

| | | | |
|---|---|---|---|
| 1974 : | 193,598 DM | | 387,196 |
| 1975 : | 298 | out of a | 596,582 |
| 1976 : | 396,000 | total expence | 796,432 |
| | = 887,598 DM | of | 1.780,210 |

The purchase and adaptation of the SYSTEM 2000 costs 5 millions DM.

- Average forseen cost for the user :

about 5 DM per question.

- Operating costs for the data bank of AVM's, see pages 10 and 11 of this appendix.
We point out the large difference in the cost :

- between the use of "in permanence" (the data is available 24 hours a day) and the use of "an hour a day"
- between the "computation" necessary to answer a precise question (1/2 a page answer) and to answer a larger question (2 page answer)
- between the different services possible (page 11).

The leasing of the terminal costs about 1.000 DM a month. It is an average station (costs in this area vary from 500 to 2 000 DM).

The costs of connections between Munich and the central computer in Holland, added to the cost of computer connecting time bring the total cost of each hour to 36 DM.

When is it feasable to possess a terminal and a print out keyboard ?

It is necessary to have more than 20 questions a day, everyday of the year. Or else, it is better to rent the services of a station which possesses them.

The price charts whether in the context of a computer/ privately owned or a computer/university governmental institutionaly owned, decline in function of the number of questions.

FWU - Datenbank - Struktur
für SYSTEM 2.000
(Stand 4/74)

| | | | |
|---|---|---|---|
| 5+ | AUFNAHME | 180+ | SYSTEMATIK |
| 10+ | DATUM | 185+ | SACHGEBIET |
| 15+ | NR | 190+ | E1 |
| 20+ | CODE | 195+ | EBENE 1 |
| 25+ | FREIGABE | 200+ | E2 |
| 30+ | LOESCHEN | 205+ | EBENE 2 |
| 35+ | ART | 210+ | E3 |
| 40+ | TYP | 215+ | EBENE 3 |
| 45+ | FARBE | 220+ | E4 |
| 50+ | LAUFZEIT | 225+ | EBENE 4 |
| 55+ | LAENGE | 230+ | PERSON |
| 60+ | FORMAT | 235+ | PART |
| 65+ | HERSTELLUNG | 240+ | SACHE |
| 70+ | ELEMENT | 245+ | SART |
| 75+ | KONFEKTION | 250+ | GEOGR |
| 80+ | LAND | 255+ | GART |
| 85+ | ORT | 260+ | ZEIT |
| 90+ | PRODUZENT | 265+ | ZART |
| 95+ | JAHR | 270+ | BEZUG |
| 100+ | PRODART | 275+ | BART |
| 105+ | QUELLE | 280+ | WORT |
| 110+ | HINWEIS | 285+ | WART |
| 115+ | BEIGABEN | 290+ | KNAPPTEXT |
| 120+ | RECHTE | 295+ | TEILTEXT |
| 125+ | SPRACHE | 300+ | ADRESSAT |
| 130+ | SERIENTITEL | 305+ | BEREICH |
| 135+ | ZWEITTITEL | 310+ | SCHULTYP |

| | |
|---|---|
| 140+ | URTITEL |
| 145+ | EINZELTITEL |
| 150+ | TITEL |
| 155+ | UNTERTITEL |
| 160+ | HILFSTITEL |
| 165+ | URHEBER |
| 170+ | NAME |
| 175+ | FUNKTION |

| | |
|---|---|
| 315+ | STUFE |
| 320+ | WERTUNG |
| 325+ | PRAEDIKAT |
| 330+ | VERTRIEB |
| 335+ | MERKMAL |
| 340+ | ORGANISATION |
| 345+ | STELLE |
| 350+ | PLZ |
| 355+ | KOSTEN |
| 360+ | EINTRAG |
| 365+ | ANFANG |
| 370+ | ENDE |

# COST OF CONSTRUCTION AND USE OF AN AVM BANK

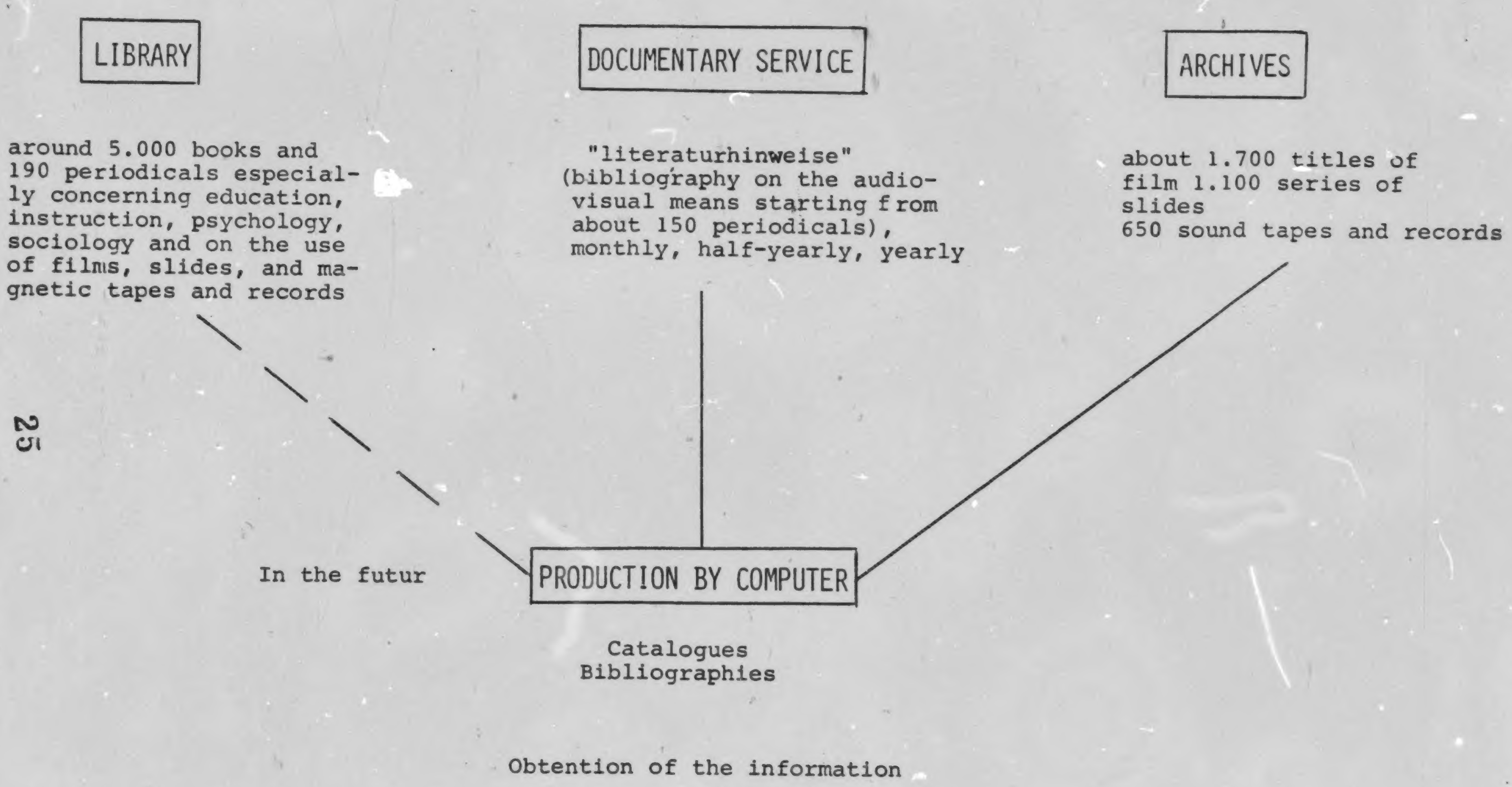
| | Construction of the bank | Leasing of the computer (input of data) | | Time counted | | Edition | |
|---|---|---|---|---|---|---|---|
| Frequency of payement | Single time | Permanent | | when in use | | Permanent | |
| Who Pays ? | 50 % State<br>50 % FWU | FWU | | User | | FWU (+ the user for the instalation of his own terminal) | |
| Size of the costs | 3 millions DM | Continuous | 1 hour/day | Continuous | 1 hour/day | Continuous | 1 hour/ |
| | | 900 DM per day | 30 DM per day | very speciali-sed question 3,50DM (about 1/2 page answer)<br>larger question (about 2 page answer) 10 DM<br>for the making of a catalogue, one has to count on 3 DM, per each page of 60 lines | 2 DM | 900 DM/day (simple print)<br>180 DM/day (superior print) | 90 DM/ print)<br>180 DM/ qualit |

| Type of Service | Delay of answer | Price of each second of use | Computer | Transmission |
|---|---|---|---|---|
| Super Express | immediat | 2 DM | 900 DM/day | ± 10 DM/day |
| Express | less than 2 hours | 1,65 DM | | |
| Standard | less than 6 hours | 1,45 DM | | |
| Economy | less than 24 hours | 1,20 DM | 30 DM/day | ± 10 DM/day |
| Week-End | the monday | 1 DM | | |

(1) Connecting costs (MODEM D ZOOS) per month

| | <15 Km | 200-300 km |
|---|---|---|
| 1.000 signes/day | 350,16 DM | 363,64 DM |
| 10.000 signes/day | 376,72 DM | 512,37 DM |

# Library - Documentary Service - Archives



LIBRARY

around 5.000 books and 190 periodicals especially concerning education, instruction, psychology, sociology and on the use of films, slides, and magnetic tapes and records

DOCUMENTARY SERVICE

"literaturhinweise" (bibliography on the audio-visual means starting from about 150 periodicals), monthly, half-yearly, yearly

ARCHIVES

about 1.700 titles of film 1.100 series of slides
650 sound tapes and records

In the futur

PRODUCTION BY COMPUTER

Catalogues
Bibliographies

Obtention of the information

16.5.74

# BADADUQ

## Data Bank with Direct Access of the University of Quebec

## 1 - OBJECTIVES

### 1.1 Field of action

- BADADUQ is charged with pooling the documentary resources of the libraries, documentation centers and audio-visual services of the University of Quebec.

  Founded in 1968 it is a multi-campus university spread over 800 miles throughout the province of Quebec.

- This geographical condition imposes the configuration of BADADUQ.

  It's a hybrid system, centralized and decentralized :

  - The central office and the BADADUQ Committee (conception, coordination, evaluation) are in Quebec City ;
  - A decentralized network of libraries, documentation centers, and audio-visual services consisting of :
    - 4 campuses of the UQ (Chicoutimi, Montreal, Rimouski, Three-Rivers)
    - University Education Center (Huell and Rouyn)
    - National institute of scientific research
    - Institute of micro-biology and health studies of Montreal.

- The structure of BADADUQ is parallel to this general scheme ; it is at the same time :

  - A data bank, stocked in a central computer Cyber 73 located in Quebec, which contained around 71.000 documents in april 1974. Each member of the network can have access to it thanks to a terminal set up at his location (10 up to now).
  - A system of location : starting from the network of terminals, it is possible to locate the documents, and

also input new data : a computer science service in each constituancy perforate the cards. 1.000 new documents are entered each week.

. It is also an (software) applied logics,developed at the campus of the UQ at Montreal.

### 1.2 Materials involved

1.2.1. BADADUQ only provides file cards on existing documents ; it gives neither the content of the document, nor anything else ; but it identifies and localizes it : It looses all of its significance if the user is looking for documents which he doesn't know or knows very little. The user must first learn to describe what he is looking for.

1.2.2. As to what concerns bibliographical materials, at the beginning, the unified collections of the libraries belonging to the divers institutions "Could not be concidered as collections of a university level, neither by their quality, nor by their organization, nor by their numbers". As to what concerns the audio-visual materials, the situation was probably just as disorganized. The documents covered all "subject matters" at the university level.

1.2.3. All types of documents, "literature" or "audio-visual" can be programmed into the BADADUQ classification, by filling out an input form where the typology is established, separating written and audio-visual documents.

## 2 - INSTITUTIONAL MECHANISM

Established in june 1973 by the Audio-Visual Commission and the University of Quebec Libraries, each responsible for a UQ service the committee is"charged" in helping the computer programming service of UQAM for the development of BADADUQ according to audio-visual and Library standards.

In order to orient the development of the BADADUQ system, the committee should :

a) propose general policies and coordinate the present use and the different steps of the plan of development of the bank, by establishing a communication network between the groups of users and the mathematics center of the UQAM ;

b) define the steps to be accomplished, establish a bill-book and identify necessary resources ;

c) periodically compare the realizations in relation to the forcasts and, eventually, redefine the book of objectives.

Role of the committe :

| | |
|---|---|
| - determination of the objectives<br>- setting up the work<br>- evealuation, retroaction | decision making<br>and<br>control role |

It's the committee which started the operation "terminal", making possible the setting up of a terminal silent 725 in 10 libraries or documentation centers of the network. "so that the personnel becomes familiarized with the operation of a task and the different strategies possible for research and eventually between documents with the help of these terminals", which necessitates training (learning how to describe what they are looding for).

## 3 - FUNCTION OF THE DATA BANK

### 3.1 Being a data bank, BADADUQ provides the following information

3.1.1. Localization of the document : by the libraries, the centers of documentation and the research centers, archives and by the campuses of the UQ (EX. : UQAM - EG, UQ at Montreal, EMILE-GIRARD pavillion).

3.1.2. Identification of the documents : code, type of documents, title, language, edition, date of publication, number of pages, etc. ... bibliographical description.

3.1.3. Descriptors : key-words of the title, authors and subjects. It does not require a fixed taxonomy which would require an initiation (first indexation). Moreover, the user could add descriptors (second indexation), it's a system of indexation where the indications for classification serve as codes which engender the descriptors, a method comparable to the documentary analysis carried out for the systematic catalogue.

3.1.4. A system of deduction of documents contained within one descriptor or group of descriptors :

Ex. ? Information
507 documents

? Retrieval
48 documents

3.2 Being a search system, BADADUQ permits the user to carry out operations of documentary research on the data stocked in the various files in the shape of magnetic discs. The selection operations are carried out by means of a reseach strategy.

This strategy of research is conducted with the help of elements of the natural language used in the system and logic operations of Bool's algebra.

BADADUQ offers the user a spectrum of research keys and special commands to help him get what he desires.

The user can carry out a search by author, combination author-subject (the key of the titles is being installed according to the method 3, 1, 1, 1, that is the first three letters of the significant word, the first of the second, of the third, and finally of the fourth word).

On top of these requests, one can ask for criticisms of an author, and have a docuemnt printed out.

### 3.3 Diffusion of the Information :

"BADADUQ makes possible a general and selective diffusion according to the users of the system and their different needs".

Ex. The libraries and documentation centers produce :

- lists of new acquisitions
- topographical list
- a list by BADADUQ numbers

........................

A production program of listings permit the fabrication of very divers lists.

The user and the bank : since march 1974, 10 libraries of docuemntation centers of the UQ are equiped with a Silent 725 terminal. The bank is within direct access during the working hours of the libraries or centers.

In may 1975, an experiment will be carried out where all the units will have been able to question the bank and introduce data. Thus, BADADUQ will become a veritable "instrumental network, making possible the pooling together of documentary resources of the UQ." without the documents themselves being stocked together : They stay near the users.

## 4 - MODALITIES OF OPERATION

### 4.1 General organization

#### 4.1.1. Configuration of the system

BADADUQ uses the central computer of the University of Quebec, a Control Data Corporation, Cyber 73 operating in time-sharing. It is situated in Quebec city, at the central commons of the UQ.

The bank is stocked on a memory mass (disc 844, 118 millions caracters). The programmation is done in Compass (machine language CDC).

Access to the computer is provided by lines of the telephone network of the University. The Data input, done in groups as we have seen, is possible from each point of the network. This is done, for the time being, by means of a cathodic terminal Hazeltine 2.000 and Silent 725 with a printing keyboard.

#### 4.1.2. Structure of the bank

The bank is divided into two parts. The master file contains all the elements of the description, except for the descriptors, and the look up file contains the descriptors.

There are two levels of indexation which permit the access to any document or description, and this, by means of two access discs at most.

#### 4.1.3. Technical specifications

(Technical specifications of 20.19.74).

## MACHINE AND SYSTEM

Supplier, series, model : CDC Cyber 73-74
Resources used : Central memory : 27k words of 60 bits
auxilliary memory : 320 caracters per file
Processing system : Kronos 2.0
Language programmation : Compass

## PROCESSING CHARACTERISTICS

File : random access
Documentary language : optional
Data input : cards
Output modes : keyboard (cards, labels, lists), terminals, magnetic tapes
Type of processing :
- author, cooperatives- author
- boolien operators AND/OR/ EXCEPT and () (parenthese) to define the request simple truncation, truncation with a list
- special instructions :
  - . research in one part of the bank
  - . print out of the descriptors file
  - . limitation of the number printed references
  - . high speed printing

### 4.1.4. Utilization

a) The user's guide (BADADUQ - UQM - Data-processing service) explains first of all how to describe a set of documents

- The system permits 4 types of descriptions

- Documents having a given author

- Documents having a person for a subject
- Documents treating a field of interest
- A very precise ensemble for which one descriptor does not suffice (we then dispose of four logics operators).

The methods of utilization permitting :

- a direct search
- a fieler search
- obtaining 6 or more cards at the terminal
- high speed card printing

b) A few facts on the degree of use of BADADUQ :

(users/institutions)

- the codification service of the UQAM library has input more than 55,000 documents into the bank since 1972, date at which the system became operational.

- the documentation center of INRS uses BADADUQ for purshasing (verification), for the treatment of documents (description and indexation) and the diffusion of information (reference list).

4.2 Operational costs (technical specifications of 20.19.74)

A) Cost of obtaining the "references" in an ordinolingual format.

| Codification | Average |
|---|---|
| Description : 150 input forms/week | $ 7.500 / year |
| $ 144 : 150 = $ 0,96 | |
| Classification : 150 input forms/week | $ 10.000 / year<br>& 192 / week |
| $ 192 : 150 = $ 1,28<br>$ 0,96 + $ 1,28 = $ 2,24 | |

Key punch/Verification:

10.000 input forms/week
2,5 persons/week $ 105/ week

B) Conversion costs of this data to the format used by the system (includes the verification of the card image, corrections and several passages in the machine)

3.000 files $ 2312
$ 2312 : 3000 = $ 0,77 (commercial cost)

C) Stockage costs in conversational mode

Disc : 844

Capacity : 150k PRU

Price : $ 649/month $ 7788/year

1 PRU : 640 characters

500 PRU : 1000 files

150.000 PRU : 300.000 files

1 file : 320 characters (compact storage)

$ 7788 : 300.000 = $ 0,02596 (real cost, i.e. the cost of adding hardware to fill the needs).

1 PRU/day $ 0,0025

1 file/year $ 0,375 (commercial cost)

D) The necessary machine time for searching, quantity of central memory used to carry out the program of 27.000 octal words

1 unit of processing $ 0,25 (commercial cost)

$$\frac{\text{Cost of the processing units}}{\text{number of minutes}} : \$\ 0{,}08/\text{min},$$

$$\$\ \frac{14{,}06}{2\text{h}49\text{min}} = \$\ 0.08 \text{ (commercial cost)}$$

This co[illegible] takes into account connection time, number of characters, etc.

## 5 - SYSTEM

### 5.1 Input of data or codification

All types of documents can be entered into BADADUQ "The information is first recorded on an input form (Formula A or Formula AV) by the libraries, the documentation centers and audio-visual services".

Elements of information held

For the libraries

1) BADADUQ Numb.
2) Institution
3) Number
4) Type of document
5) Author
6) Title
7) Edition
8) Collection
9) Notes
10) Periodicals
11) Number of pages
12) Number of volumes
13) Number of copies
14) Language
15) Date of publication
16) Editors
17) Characteristics (Bibliography, illustrations)
18) Reference
19) ISBN or LC candno
20) Descriptors
21) State of collection

For the audio-video "libraries"

1) BADADUQ Numb.
2) Institution
3) Number of document
4) Type of medium
5) Number of parts
6) Number and quality of the copies
7) Accompanying documents
8) Availability
9) Black and white, color
10) Silent or sound
11) Length
12) Speed
13) Title
14) Authors
15) Descriptors
16) Level - target group
17) Quality of the contents
18) Date of production
19) Language
20) CDU number

- The elements of look-up are key words ; They are indicated by means of slashes. The author, the important words of the title and the descriptors, become look-up elements.

- The authors-cooperatives, the periodicals and the editors are transcribed in code in order to simplify the input of data.

- A participating institution could, if it wants, use fewer elements of information ; the fields required are :
  - the BADADUQ number
  - the institution
  - the author or the descriptor

- The input form "BADADUQ A" serves to transmit to the computer the registered information for each document to which access is desired by consulting the bank. This input form serves exclusively those institutions which have the documents and want to enter them into the bank. Another input form is available to the users so as to allow them to add descriptors to the documents.

- The input form A and the input form AV (AV materials) serve to :

  1) enter references for a document which doesn't exist yet in the data bank ;

  2) correct or complete information pertaining to documents already entered ;

  3) completely annul all references to an already entered document.

Punch procedures are available for each of the two input forms so as to permit the user to understand how the codification can help the perforation.

Insofar as procedural details are concernend in the codification of the input form AV, one should consult the digest published by the University of Quebec in june 1974 : BADADUQ (AV) codification. It carries all the codes adopted for, especially, the types of medium, the number and condition of copies, the type of sound, speed, quality of contents, level of use, conditions of availability, language used, nationality (or nationalities in case of co-productions, and the author or authors and their quality or role in the document).

- We do not have available for the time being the two digests concerning the validation operations and perforation of input form AV.

- All these elements will appear on the new input form of the audio-visual services.

- The data processing service of each campus perforates the cards, which are then validated by a program, corrected and saved.

- The input of data in interactive from a terminal is normally available as of december 74.

## "DIDACTICS LIBRARY : TOWARD A NETWORK OF MEDIA LIBRARIES"

## UNIVERSITY OF QUEBEC

"The didactics library, toward a network of media libraries, such is the title of a report published in may 1974 by the University of Quebec".

This study brings us another confirmation that the concept of a "data bank of educational programs" is to be looked for in a hybrid system, at the same time centralized, as far as its organization,and its coordination of information, and decentralized as far as the physical implementation of the documentary units.

### 1 - The concept of "media library"

Adopted by the UQ, the words media library (mediatheque in French), from now on designates all those centers of documentation which, whatever their equipment or fitting, fulfill these three principles :

- physically regroup in the same place, a large diversity of documentary resources and the technical means likely to enrich the process of the learning experience ;
- organize the documentation so as to facilitate thematic and multi-disciplinary research ;
- to initiate the documentary supply to the user through similar methods as those of marketing.

It could be what is called "Learning Resources Center" in the United States, or "Centre de moyens d'enseignement" in the French speaking countries. It is to be pointed out however that the French term does not seem to include the two notions of "teaching" and of "training" that the term of mediatheque could insinuate, or else we could say" Centre d'Enseignement et d'Apprentissage".

It would maybe seem timely to officially adopt a concept like "mediatheque" at the international level, so much more so since the terms of "data bank" or "program bank" is often badly taken, implying a notion of centralization, eventhough the models seen have a structure leaning toward networks.

Several types of documentation centers illustrate this concept of media library.

In the United States : all centers called :

- Instructional Materials Center
- Educational Resources Center
- Educational Services Center
- Library Audio-Visual Center
- Learning Materials Center
- Multi-Media Library

and which exist in more than 300 colleges and universities.

In Canada :

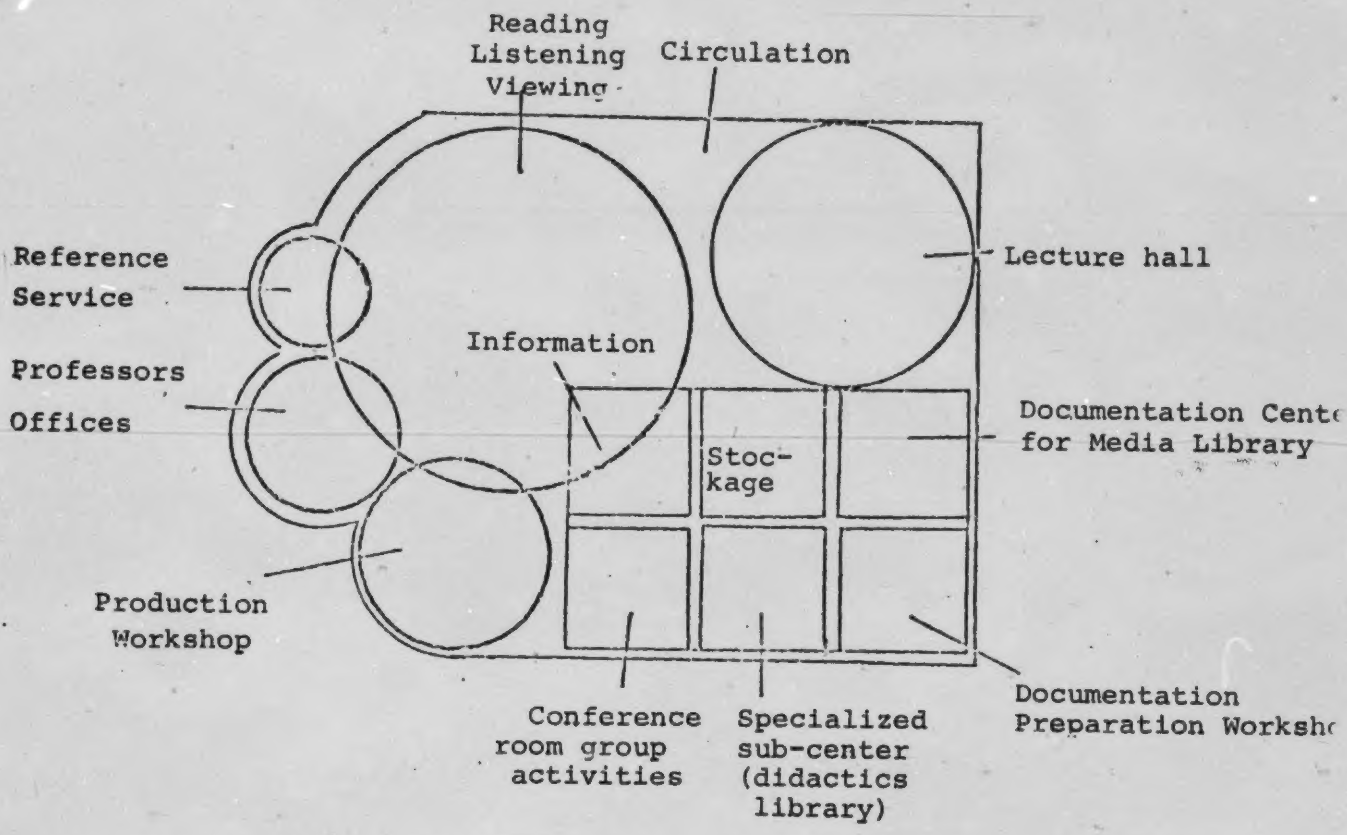
- The centers systematically set up by regions (for example, in Pee County, Ontario).
- The pilot - experiment of the CEGEP Montmorency
- The didactics library of the UQ at Rimouski
- The material library of the Saint-Justine Hospital in Montreal.

In France :

- The autodocumentation center of CES at Marly-le-Roi.

The media library is not necessarily to be created from scratch. It's a restructuring of a library or documentation center already integrated in a teaching or learning establishment. In the minds of the authors of the report, the media "library" fits in the evolution of the conception of the educational system, which is becoming a process of individualized learning. There are no more places where one can receive an education distinct from a place where one can research in order to complete this education, but one "laboratory for learning methods". The media are thus integrated, by means of a systematic approach to education, in a center which is not tied to a particular type of architecture.

In these documentary centers multimediatized, the "self taught" have an immediat access to the different types of media for documentation, thanks to an organization of the educational environment, which, comes from the main principle illustrated in the following diagram :


Reading
Listening
Viewing
Circulation
Reference
Service
Lecture hall
Information
Professors
Offices
Stoc-
kage
Documentation Cent
for Media Library
Production
Workshop
Conference
room group
activities
Specialized
sub-center
(didactics
library)
Documentation
Preparation Worksh

## 2 - THE CONCEPT OF DIDACTICS LIBRARY

"The concept of didactics library" applies to encyclopedic documentary ensembles or thematic sub-ensembles etc.". It is applied here to a specialized type of documentary resources : "the didactics material, i.e., the material serving the school apprenticeship and in the teaching formation of students-teachers." (page 22 of the report mentioned in the references). The didactics "library" is thus a media "library" of educational material.

- According to the authors of the report, the concept has been developed :

  a) through the inspiration of the French experiment of the CRDP, they acknowledged "the usefulness and efficiency of regional documentary equipment" : "Regroupment in the same place of the pedagogic and administrative documentation, information to teachers and scholastic establishments, publication of documentary thematic files, loan service by mail, documentary research service in the region, etc." (page 24 of the report) (1)

  b) Through the inspiration of the public or private institutions which take care of the formation of teachers in the USA, and are equiped with a documentation center specialized in didactics material. One of the most famous examples is the center at San Diego State College.

- With these examples, it was necessary to take into account the proper needs of Quebec : "The rules of setting up a program of a teaching license requires among others, two didactics courses directly related to the field (s) and level (s) mentioned on the teaching license" (page 25 of the report)

- The didactics library project has thus learned from "the French experiment the regionalization, from the American example, the university localization, to combine these concepts into a properly Quebec one, having both the regional and university characters for the formation of teachers in Quebec". (page 25 of the report) (1)

The project described below concerns the implimentation of a didactics library in a university center, at the University of Quebec at Three Rivers.

### 2.1 Objectives of the didactics library

- The service here concerns the elementary, secondary and collegiate educational levels for which the University has the task of training teachers. But it could be applied to divers types of apprentice ships.

"Didactics, toward a network of media libraries" may 74, UQ

- Whether it is itself organized into divided spaces (example : biblio-audio-video libraries) or whether it uses, as an element of a media library, the documentation already grouped, this service is only a sub-ensemble in relation to documentary center (s) :

- Since it groups, develops, and exploits a whole range of didactics material :

| | |
|---|---|
| . "book" materials | . manuals, exercise notebooks |
| . "integrated" materials | . educational packages, simulated games |
| . "audio-visual" materials | .slides, 8m/m films |
| . natural objects | . rocks, herboriums |
| . technical objects | . facsimilies of ancient coins etc. |

- and it is charged with organizing the real access to the documentation, to provide the document itself and not only a description card.

- at the disposition of the whole university community, it serves more specifically teachers in training or in formation.

### 2.2 Functions of the didactics library :

a) initiation : to provide a real knowledge of didactics materials, the service groups "divers technical and human resources of the university regional centers" : didacticians, communication and documentation specialists, teachers in training and formation are gathered into work sessions or retraining sessions, class demonstrations etc.

b) documentation : the documentary activities carried out in relation to the specific needs of the users, that is in function of teaching fields and scholastic activities : the direct collaboration of professors involved in the formation of teachers is essential for the selection of documents.

### 2.3 Objectives and conditions which have determined the choice of UQTR (1) for the implimentation of a pilot-didactics library :

- summary of the objectives proper to the University of Quebec: (page 32-34 of the report).

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(1) University of Quebec - Three Rivers

1 - Provide to the education departmentof the university a service and equipment more adapted to its needs ;

2 - Allow the university to experiment with another formula in the setting up of a university resources center likely to enrich and ameliorate the conditions of apprenticeship ;

3 - Develop an experimental formula of regional university services transplanted into the teacher training centers.

4 - Study the efficiency and modality of the operation of a future cooperative network of media libraries for higher education, implanted in each campus of the University of Quebec.

A reminder on this point that the University of Quebec with its "multiple" campuses in all areas of the territory is already provided with a communications infrastructure, the BADADUQ documentary network.

The UQTR combined particularely favorable conditions for the immediate implimentation of a pilot didactics library :

- Education is one of its four fields of majors and the formation of teachers represents more than half of its annual registration : 2,538 registered in the education department in autumn 1973.
- Moreover, the UQTR is the only center of teacher training in the region situated in the heart of Quebec and one of of the most urban of the province with an inhabited area not quite that of 20 % of a territory which is bigger than Belgium.

## 2.4 The suggested model : the "specialized office" :

The didacticslibrary service serves as an intermediary between the users and the different documentary centers, by making functional and thematic arrangements of materials on a temporary basis of variable duration according to each case. This especially concerns the integrated materials that neither the audio-visual nor the library save (technical and natural objects), (didactics games etc.).

It's a center for sorting out loan applications and purchase suggestions for the users, a marketing agency and an exhibition center.

## 2.5 General Organization

a) The personnel

It's not so much a question of recruting new personnel as to change their duties. Two positons seem imperative :

- initiator-documentalist : who has administrative-accountant duties (budget, acquisitions, distribution and stockage of materials, collaboration with the library and the audio-visual service), and initiation duties (choice, evaluation and indexation of material in collaboration with professors and a committee of didacticians ; publication of a bulletin ; establishment of a system of description and pin point of materials ; counseling users ; public relations with the producers and editors of material ; "publicity" for the didactics library etc.)
- library technician : assists the first, takes care of the description and treatment of materials, keeps up to date the file of editors, and familiarizes the user with the operation of the didactics library equipment.

b) Development of the collection

The initiator-documentalist will execute the policies of selection established by a committee of resources-people according to the following scheme :

1 - consultations with didacticians and users in order to make sure that the collection fills their needs ;

2 - inventory of resources of other services in order not to "duplicate" the material acquired in other campuses and inventory of supliers and producers of material ;

3 - evaluation in collaboration with the didacticians in relation to the orientation of education and research.

c) Organization of the documentation

- Documents must be spotted by educational field, and quickly located in the didactics library. The BADADUQ system (input form A) described earlier fills those needs.
  The analysis of indexation of documents will be done by a committee of didacticians with the help of a member of the didactics library.
- The didactics material, recent or currently used, will be classified by educational field, while those materials which are used less frequently, will be stocked by categories of documents.

d) The service to the users :

- categories of users :
  - didacticians (evaluation of the material for its exploitation or for the development of other tools)
  - future teachers
  - active teachers
- methods of utilization :
  - independent study, small group study or collective study combining several classes
- range of services offered :
  - reproduction of documents
  - organization of materials, experimentation laboraries
  - organization of informational work shops
  - organization of production teams with the audio-visual service
  - demonstration of material.

# THE DATA PROCESSING PLAN OF THE UNIVERSITY OF QUEBEC

On december 18,1968, the University of Quebec was established by the National Assembly. Quebec thus had its seventh institution of higher education. The creation of the University of Quebec caps the wide reforms of the educational system of Quebec, which has seen, during a period of ten years, the reorganization of the primary, secondary and collegiate levels.

First public university in Quebec, the University of Quebec is a network of multiple units, with university campuses at Chicoutimi, three Rivers and Rimouski. The national school of public administration, a higher education school for the training or perfectioning of public administrators, is also a part of this network. This is also true for the National Institute of Scientific Research which, in its five specialized centers (energy, water sciences, urbanization, telecommunications engineering and health sciences), follows a coordinated policy of teaching and research. To this group is added since may 1973, the institute of microbiology and hygiene of Montreal, seventh unit making up the networkd of the University of Quebec ; and, since 1974, also at Montreal, the school of higher technology whose specific mission is to provide for the training of a new type of specialists, during their first university cycle, capable of organization, control and administrative duties during the divers phases of industrial operations.

The Universtiy Studies Coordinating Committee in West Quebec, with Hull and Rouyn as the main centers, as well as the tele-university complete the Universtiy of Quebec network. This allows people far from the university to stay in contact with it.

In 1972-73, these institutions grouped more than 25.000 full-time students, registered in more than 225 study programs. More than 1.000 regular professors taught there. More than 5.000 students have graduated from the University of Quebec, now in its 5th year.

What is striking in this vast university complex is that the distance separating the institutions can vary from a few miles to 800 miles, that the size of the institutions vary immensly, that their vocation differ from one region to another, that their annual operating budgets range from 1 to 25 millions dollars.

Knowing the importance of data-processing in the modern university, we can understand the main objective of the data-processing plan of the University of Quebec which is to provide each campus with equal service potential both among themselves and other Universities in Quebec.

Around 1970, the best that technology had to offer to Quebec was a tele-data-processing network, star shaped, modified. The center of this network is a central site of average power (to start with, a computer CDC 6400 with 49k words of central memory, under the SCOPE system, but now a computer CDC Cyber 73.14 with 65k words of central memory, under the KRONOS system). Any way, the basic concept of a star-shaped tele-data-processing system has been modified to provide greater autonomy to the three biggest campuses. Instead of being equiped exclusively with terminals for the tele-treatment by group like the other institutions, the University of Quebec at Montreal, in three-Rivers and in Chicoutimi were provided with smaller computers, the computer CDC 3150 with 32k words of central memory. Besides the possibilities of local group treatment, a part of this computer acts like a tele-treatment terminal by group of the central site, like a heavy terminal CDC 200 UT.

The central site is not the only one being developed. Now, the University of Quebec at Montreal has a computer model DEC-10 of 121k words of central memory. The University of Quebec at three-Rivers has a computer CDC model 3300 of 81k words of central memory. More over, these two institutions have intelligent heavy terminals of the tele-communication type COMTER 2100 for the teletreatment by group M at the central site.

At the present time, the central site takes care of 13 heavy terminals for treatment by group (of which the three smaller computers), representing a tape width of 44k bauds. It serves educational, research and accounting purposes. The different partners of the data-processing network, have thus acquired a solid experience in the teletreatment by group.

We know the insufficiency of logics units presently offered by the big manufacturers. We thus have to proceed in a different manner in order to fill the needs of those users capable of more expert use.

This lack has led Mr HERB BEZ, responsible for the common Center of the University of Quebec Data-processing network, to propose a system more suited to the needs of the users of our network. This system, the subject of this publication, is by itself interesting, no matter what type of methods are used for its implemention. It could be particularly efficient inside a working system of a sufficiently sized computer. As far as we are concerned, we chose to fit it on a pre-processor connected to the main computer.

Also, we can not limit ourselves today to teletreatment by group. At the University of Quebec, the growth of teletreatment by interactive mode is more rapid than by group mode although the latter still represents more than 75 % of the total charge.

The project proposed by Mr HERB BEZ is presently being realized. It is made up of two parallel preprocessors, connected to two different channels of the central computer. one will take care of asynchronous communications with speeds inferior to 1200 bauds, and the other, synchronous communications with speeds superior to 2000 bauds. In the philosophy of the KRONOS programming system of the CDC company, the first permits interface with the sub-system TELEX, which determines the programming in the interactive mode for asynchronous terminals, and the second with the Export-Import programming subsystem, which determines the teletreatment by group for the synchronous terminals. To accomplish that, we will use two mini-computers of the Mod comp II type.

This study realized by Mr HERB BEZ provides the essential elements of the logics which is now being tuned up for the second procedure, that is, by making possible the inter face with the Export-import programming sub-system, will take care of synchronous communications and serve mainly for the teletreatment by group.

GUY BERTRAND
Director of data-processing
at social office of the
University of Quebec

# NATIONAL OFFICE FOR TECHNICAL DEVELOPMENT

Interview with Mr DUZC Budapest November 1974

An interministerial organism directly dependent on the Hungarian government, the Office is not tied to one ministry, but lialises between all ministries taking care of education at any level.

## 1 - OBJECTIVES OF THE NATIONAL OFFICE FOR TECHNICAL DEVELOPMENT

### 1.1 Coordination and orientation of production and of a small part of the technical and scientific film distribtution serving education in Hungary.

Ministries taking care of education are mainly :

- The Ministry of Education, which coordinates all educational tasks in the country
- The Ministry of Cultural Affairs, which takes care of technical educational film production through film studios specialized in popularizing scientific and educational material for the national society, MAFILM.

(The two ministries were but one up to 1974).

- The Ministry of Heavy Industry, which possesses an important stock of films to lend,
- The Ministry of Chemistry,
- The Ministry of Agriculture,

They produce and distribute films, each one specialized in his field.

- The Ministry of Labor has been charged in 1972 by the government fora training program for workers and foremen. This gave birth to a training center, the O.D.K.I., which produces and uses specialized films.

The distribution is done by a network of 19 regional centers and a center in Budapest, under the direction of the Hungarian interior distributor. (The distribution outside Hungary of technical and educational films is carried out by HUNGAROFILMS which is also the national exterior distributor of "commercial" films.

1.2 Supervision and coordination of a National educational technology center in Budapest.

This center, created with the participation of UNESCO in 1973, trains managerial staff to teach educational technology, by three types of action :

- organization of long and short training sessions.
- elaboration of "programmed education" programs
- development and research activity

1.3 Supervision and coordination of information on available films in Hungary and elsewhere :

a) the O.M.K.D.K., or Information Center for technical films, within the National Technical Library in Budapest, created 12 years ago, produces :

- file cards on all technical and scientific films produced in Hungary.
- file cards on chosen and acquired foreign films, published in the shape of a quarterly catalogue (Technical Film Cards - International Selection) containing 1000 titles chosen every year, for the information of the Hungarian market.
- catalogues by subject or theme, for the asking from the Ministries or Universities of the country or from international organizations (example : UNIDO, AICS).

Note The printing of cards and catalogues as well as the "Audio Vizualis", a quarterly magazine of the Technical Training Center, is taken care of by the National Technical Library.

b) the Office is setting up, since october 1974, an information system on short scientific and technical films, in the light of an international information system for socialist countries : it's a question of elaborating a data bank for all specialized films from member states.

Each country will thus be informed of its own productions and acquisitions, in relation to productions and sales of other countries. For the time being, we only know that there is :

- a counsel made up of two representatives of each country, a data-processing expert and a specialist in this type of film ;

- One executive committee by country, of which the National Office for Technical Development for Hungary.
- A data registration form which has already been adopted. The forms will be collected and sent to a base organism in Moscow, which will put them on punch cards. This includes for each country the national production as well as imported films.

On a short term basis, this information system aims for an ameliorated coordination of production and then, on a long term basis, the rationalization of production development.

The second stage will permit access to viewing copies, so as to better choose films in the general file thus established. An Office work group is elaborating a project, making possible the acceptance of all member countries, of one viewing format : super 8. We note however that schools seem to be equiped with 16 mm.

Another work group is studying legal and financial problems which will come up during distribution of copies for sale or exchange. (renting has not been discussed).

The computerization of the system is forseen, after a non-specified probation period of the system by punch cards. At that time, will information be transmitted by exchanges (through sale) of computer tapes between executive committees of each country ? Many questions are left open, starting from the film information mode in the file and punch cards system.

In another stage, when the system becomes operational (before or after computerization ?), the inclusion of other audio-visual pedagogic materials than films is envisaged.

## 2 - INFORMATION CENTER FOR TECHNICAL FILMS

The Information is made up of an office with 3 to 4 people since several years, without any plans of change. It is attached to the Central Technical Library, which, for example, recieves more than 6.000 periodicals yearly, and regularly publishes 60 publications. A department in the library sorts out and classifies literary material and since a few years, audio-visual materials as well.

C.D.U. is used for both types of material. It's the printing office of the library which prints the cards and catalogues for the center.

Mr DUZC personally takes care of most of the selection of films to be catalogued. He does so in function of both their quality and national market tendencies.

The Information Center, has for essential duties : the base collection, classification and the making available to potential users information on short technical films both foreign and Hungarian, acquired or not.

## 2.1 The "international selection of technical film cards"

This loose-leaf index card catalogue (20,5 x 15 cm) groups essential information on short 35 and 16 mm technical films, distributed by either foreign countries or by Hungary. This quarterly catalogue groups each time 250 separate cards, classified according to the C.D.U. (Universal Documentary Classification).

The 1000 titles listed yearly are chosen by Mr DUZC and by Doctor NAGY "according to the evolution of Hungrian needs". It was impossible to find out whether this determination of the needs is carried out through a rational method.

For foreign films, the titles are chosen from foreignly distributed catalogues, of which the Center has a yearly renewed collection. The central library service classifies the material according to C.D.U., and prints out cards of the descriptive summary of the original catalogue. This summary is translated, since the 3 international catalogue languages are English, French and German. If the general presentation of the catalogue is in English, each film description is written according to country of origine.

- in French for France
- in German for East, Germany, West Germany, Austria and Switzerland
- in English for all other countries

Each card contains two titles : it is horizontally perforated in the middle, so as to be separable into two (10,25 x 7,50 cm) cards.

Each separated card contains the following information.

---

C.D.U.
TITLE
year
country of origin

catalogue number of the card
ex : 252

---

Name and eventually address
of distributor

ex : 1973/Z
year and quarter of
catalogue

Color or Black and White
Length : format

Source : name of catalogue from which it is taken

Summary of film (which is continued, if needed, on the back)

ADDRESS OF THE INFORMATION CENTER

---

The cabinet containing the cards for each quarter also contains a loose-leaf binder, without which the cards would bring very little information, containing :

- a catalogue list from which film titles are taken.

  The films are chosen from 4 to 8 catalogues per quarter. Fifty tiles are thus chosen on the average. For the user, this indicates, for example, that n° 200 to 250 come from the same catalogue.

  The center keeps the copies of these cards in boxes, according to the same system : catalogue X = cards n°1 to 89

- a CDU code subject list, title of subject, n° of cards pertaining to the subject.

For the user, this makes the location of all films concerning one subject possible.

The center also has card files classified according to CDU Code number of the subject.

The "international selection" is only a means of spotting existing titles on a subject matter and locating the distributer. It is then up to the user to contact the distributer concerning the conditions for the acquisition of a film. The user is thus only spared the search through a large quantity of catalogues.

The Center has established a catalogue of catalogues, a large book in which 952 catalogues representing current short technical and scientific film production are classified by hand. A number is given to each catalogue. There are no copyright problems concerning reproduction (translated or not) of the original text of the catalogue summarizing the film, since it is "free publicity" for the distributer.

As far as for Hungarian films, the collection of information has been much more difficult : It has been necessary to obtain the information directly from the producing companies and distributers of technical films. An information collection form has been drawn up. Beginning in 1975, all companies seeking to distribute their films, will have to fill out this form. The Center recieves these forms automatically, which include essential information on these films.

This will make possible a systematic collection of information on all films produced in Hungary, and of at least half of the imported films. A copy of this form to be filled out by the producer/distributer can be found on pages 12 and 13 of this appendix. For the time being, the system is only applied in Hungary, and will be re aranged as far as the eventual expansion of information collection is concerned.

## Evaluation

The Center was established 12 years ago. At the beginning, the placing of all scientific film information on perforated cards was sought. This practice was stoped for lack of profitability. Today, 3 people suffice in establishing the technical film cards. It was decided, from the experience thus acquired, that a selection of 1000 films yearly is quite sufficient. Starting from the theory that the best films are those participating in film festivals, it is from catalogues published for these occasions that most selections are chosen. Finally the technical, scientific, industrial and educational developments in Hungary are also taken into account for the selection.

The presentation of the 1965 catalogue was very similar to today's except that it used to be in book form. There were brief news commentaries on this cinema branch in the first part of the book. In the second part there were perforated pages, separable into two, just like the present version. English, French and German were already used since it has been an international Center from the beginning.

The present formula was adopted in 1971. Doctor NAGY believes that the British National Film Catalogue is the best after the Center one, which is more practical because the cards are detachable and the publication is periodical. He thinks that C.D.U. is perfectly satisfactory for their needs.

Information requests are made by telephone, letters or personal visits to the Center. The Center uses two files each grouping the entire collection of technical cards published since the origine of its international selection :

- One is organized according to the C.D.U. by subject or theme
- The other according to the country of origine of the catalogues

Inside that, the classification is Alphabetical.

The users can quickly obtain information on the existance and localization of films both by subject and by country of origine.

The average cost for this service is 30 Fiorint.

Doctor NAGY says that the volume of information requests does not justify a change in the operation of the Center and that no problems are encountered in satisfying the users.

## 2.2 Other services

Organisms sometimes seek special orders, more important, which are also carried out.

2.2.1. Example : "Films or information -selected list-1971" : The Center has classified 55 films on documentation and information services in 1971. This was destined to people interested by the library and the information and documentation center's activities. This was carried out for the International Federation for Documentation (FID/DC). The presentation is the same as that of the international selection : Cards of an As format (14,9 cm x 9,5 cm) on heavy paper, to be separated into 2 film cards and put in a file box. But there is no C.D.U. code ; they are classified by alphabetical order and carry a number. Only English is used. In the introductory note, the film titles are grouped with their catalogue number and country of origin.

One or two films date back to 1945 or 1956. They are of different origins (more than half from the U.S.A.) Sometimes, the date of the film is not indicated. We repeat again, that it is but a simple list of selections informing the user who has a very precise subject in mind, which he still must directly request from the distributer.

2.2.2. Other examples :

. Orders filled for the Technical University of Budapest, for different departments :
  - list of films on ecology and environment protection
  - list of East German films available in Hungary

. The Young Communists centre has asked for :
  - a list of films on labor organization

It was made from already existing indexes, established in 1971, on all films :

Related to work, for the Labor Ministry

. a city asked for a :
  - list of films on wood pannel construction.

Ten films were found on this subject

All these services are invoiced but no information has been given to us. It seems that bills vary very much in function of the client and the size of the research as well as printing costs.

"Thematic" orders are comiled in a notebook, so as to establish statistics on the needs of the country at the end of the year. If the orders are quite varied, the use of scientific and technical films is not very high, and that is why there are few clients, and information orders are easily satisfied. There seem to be no present desire to refine the information given or to give more of it.

2.2.3. "Selected list of films on the Glass Industry" : List of 70 films made by the Center for the glass industry day in 1966 in Budapest, for UNIDO and the Hungarian government. It allows for several types of research, according to :

- a subject classification : subject code - subject - number of films treating this subject
- a classification by country : Country - Number of films originating in that country
- the numbered and alphabetized list of films themselves :
    - Number
    - TITLE
    - country of origine
    - duration, format, color or B&W ; and eventually divers information on the length, the sound track, available foreign language versions
    - short summary (2 to 10 lines)
    - distributer - exact address
    - code of the subject - (Example : CIS production of television reception tubes) and explanation of the code
    - alphabetical list of distributers : Name and address, N° of films distributed

2.2.4. Preparation of the Audiovizualis bulletin, specialized in "educational audio-visual". This bulletin, of which Mr DUZC is editor, has been coming out for 12 years, 6 volumes yearly (1000 pages) in English, German and Hungarian. The Center coordinates and supervises the gathering of different articles (reports on educational methods with the divers materials and evaluation of those materials) and writes articles on educational films.

## 2.3 Enlargement and devolopment of the Center :

- The special situation of the Information Center inside the National Library of which it uses the services (sorting, indexation, translation, printing),

- The experience acquired from the "International Selection" card publication and analytical treatment in divers thematic lists,

- The knowledge of industrial and scientific market needs and also those of the educational market as far as technical films go, also knowledge of other audio-visual material evolution through the preparation of the "Audio-vizualis",

This triple experience has led the Center to concider the expansion of information collecting and supplying into materials other than 35 or 16 mm short films. There are two basic actions for the time being :

2.3.1. The technical card method, classified according to the C.D.U. of the subject, will be kept for the expansion into other materials :

Example : The Technical University of Budapest has ordered an index on existing audio-visual didactic materials in Hungary. More than 500 have been classified. The presentation and format of the cards are identical to those of the International selection except for the following differences :

- C.D.U. on top and to the left for the subject or theme
- on top and to the right for code of audio-visual Medium and number of materials existing : Ex = F/48 ... or D/50

the code : D = slides
F = films
HF = film loops
HL = record
HSZ = magnetic tape
Ksz = video tape
M = scale models
T = transparencies

. another order is being filled in the same way for the living languages laboratory of the same University, on the existing audio-visual materials for language education. These services are billed.

. The elaboration of a file on technical and scientific films acquired or produced by Hungarian Television is forseen for the middle of 1975. It already has its own catalogue, and the first task of the OMKDK will be to classify it according to the C.D.U.

The Center is set on continuing its classification work by incorporating other indexes as needs and requests arise (- already, in the catalogue made for the FID/CD, one or two cards were about "sound film strips"), on the C.D.U. by subject basis, on a narrow notion of information (indexed lists) and on the internationalist notion.

2.3.2. The classification of cards by C.D.U. subject method is being kept for the data processing of the information system.

Expected for 1980 : INTERFILM (Mr DUZC) with a system called DUPLICATOR, and will be used, to start with, only for cards. The card has already been chosen.

A sort system will provide all cards concerning one subject. But if this system is centrally adopted in Moscow, the Information Center does not forsee joining it : the translation problem is left, which is their major preocupation.

Only Mr DUZC or one of the work groups of the National Office for Technical Development could give out information on this system. But we have been categorically refused.

7/12

Central Technical Library of Hungary
and Center of Documentation

Center of Technical and Scientific
Film Documentation

Budapest

## technical - scientific / film form

1.1 Original title
1.2 Translated title : X

2. Classification of the film
   2.1. Subject / CDU / X
   2.2. Economic activity / U.N. / : X
   2.3. Type : X
   2.4. Sortting aspect : X

3.1 Commentary language :
3.2 Language of the inserted plan :
4. Language and title of other versions :

5. Country of production : 6. Year of production :

7. Headquarters / with address / :
8. Producer / with address / :

9. Title of the series, registration number :

10. Producer : 11. Operator :
12. Scientific advisors :
13. Scenario : 14. Editing :
15. Commentary : 16. Music :
17. Technical advisors :

18. Copyright owner / with address / :
19. Commercial distributer / with address / :
20. non-commercial distributer / with address / :
21. Owner of TV rights / with address / :

22. Format : 8 - 16 - or 35 mm, cinemascope X
23. length : 24. large or small screen :
25. projection time :
26. projection speed : 16 or 24 images / second X
27. color - Black/white X
28. silent - sound / optic or magnetic, separated or not / : X

29. Brief Summary :

30. Target group for the film : X

31. which festivals has the film participated in and what distinctions has it recieved :

32. Possibility of its loan to users :

33. Notes :

The following points must be concidered before filling out the form :

1.2 Put the translated title in the language of the Country where the form is filled out

2.1 Define the subject of the film on the basis of the title and summary by the C.D.U. number, there are no limitations on the depth of subject division.

Appendix 8/1

# COUNCIL OF EDUCATION TECHNOLOGY
(CET)
United Kingdom

In the United Kingdom, the CET edits three catalogues by computer :
HELPIS (Higher Education Learning Programs Information Service).
CELPIS (College Education Learning Programs Information Service)
Medical HELPIS (Catalogue of Medical educational materials).

The users enter directly in contact with the holders of the documents (Universities, Colleges, engineering schools, technical schools... Open University, BBC ... but this doesn't seem, for the time being, to favor numerous exchanges).

There are at least twenty national bureaux which have an educational audio-visual materials information service : information on materrials, revues and article criticisms, counceling, research, evaluation, promotion. The large variety of services offered and of users (schools, higher education, training sections for industries, army and governmental services) cause overlapping but nevertheless leave uncovered areas, certain media not being well covered. It is for this reason that the united cataloguing national agencies have decided to form a data bank, with centralized files, read by computer.

The compilation and publication of one exhaustive catalogue has been rejected : first of all, it would be a tremendous undertaking which would result in a very expensive catalogue, secondly, the user needs selective lists, which could lead him quickly and accurately to those articles which he needs.

The first objective is to quickly develope the central files, which could be used in cooperation by all the agencies. By the end of 1973, it contained 4.000 registrations. From it the catalogues HELPIS, CELPIS, MEDICAL HELPIS as well as the British film catalogue are taken.

The technical basis for the cataloguing method uses a modified MARC system adopted by the British Library for book and catalogue making by computer. The information to be recorded is placed on a standard form and then transfered to computer input tape. The input of the tape provides the data for the computer which then provides a series of films produced by means of photography, from which a print-out keyboard makes as many copies as needed. (This system also permits the inexpensive printing of micro-cards). Each input tape can serve indefinitely, providing data for the catalogues, according to many types of criterias. This system also makes possible the up-dating as often as necessary.

In the forseen colaboration system, each agency gathers and classifies bibliographical data, then, on one particular software point, and on standard format, transfers them to the computer programming service, which treats and places them on the memory banks. When the agencies request selections, classifications and arrangements, the data processing service produces film compositions (after an intermediary stage of verification on a printed proof). Agencies will have them printed and spliced by the printer of their choice. But the agency can also personally carry on exploration into the data bank.

A central coordination agency was created to oversee the well functioning of the system. It is for the time being called British Media Record.
With the accord of the agencies, multimedia centers of local school districts can become associated with this system. Memory bank and format cost will be covered by asking a fee for each service from participating agencies.

This system of collaboration offers the following advantages :

a) by encouraging cooperation between agencies, it will eliminate overlaping and permit a wider media coverage ;

b) it will provide a greater uniformity in the presentation of data without infringing on the agencies' specific needs for their catalogues. It will permit the use of one catalogue format ;

c) It will aleviate up dating and accumulation problems through computer processing speed.

As to the development of the system, it depends on several factors, already mentioned, concerning "the circulation" :

a) the acceptance of a series of principles for the description of catalogue inscriptions :The basis for the agreement will be made according to the principles elaborated by the Media Cataloguing Rules Committee, of which the CET and the Library Association are responsible.

b) the creation of an input format for the universal machine, flexible enough to carry information elements, necessary for media, but remaining compatible with library card format, in order to create multimedia catalogues : The British National Bibliography is preparing a project in this direction.

c) the creation of a numbering plan for central files articles : its adoption on the national level would facilitate orders, purchases and sales by computer. The British Standards Institution is studying the possibility.

d) Research on intended stock capacity in order to give improved information on AVM's. This will lead to the production of selective bibliographical lists as well as research on the characteristics of users for all stock requests and also experimentation on request techniques by users such as direct access to the console.

Appendix 9/1

# OFRATEME
## French Office for Modern Educational Techniques

## 1 - GENERAL ARTICLE, FUNDAMENTAL PRINCIPLES, MISSION

Public administrative organism under the Ministry of National Education, with its own administrative council, OFRATEM's essential mission is to "promote technical development of modern education in the heart of education at all levels. It has a national and international vocation, aimed mostly toward French speakingcountries". OFRATEME is made up of 6 main organs to insure its mission. The central educational film library is part of one of these organs, the "Scientific Equipment and Diffusion Service". The film library diffuses 16 mm films in a non-commercial way.

But OFRATEME also produces 8 and Super 8 films, slide series, records and audio-visual ensembles. With a purely non-commercial origine, OFRATEME has initiated since 1971 a sales policy.

## 2 - HISTORICAL CONTEXT AND EVOLUTION

OFRATEME was created in 1970, at the same time as the INRDP (National Institute for Pedagogic Research and Documentation). The latter is an organ centralizing the actions of the 23 regional establishments, the CRDP's (Regional Pedagogics Documentation centers), starting from the National Pedagogics Institute. The INRDP is a national public administrative establishment, under the Ministry of National Education, and its mission is to insure "conformly to a program, aprouved by the Ministry of National Education, consisting of fundamental and applied research on education of all levels. It elaborates and diffuses educational documents as well as documents on the contents of educational programs." (Decree n° 70 - 798 of September 9, 1970). The INRDP, through the CRDP's sales offices, is in a way the sales service of Ministry of National Education publications.

In theory, OFRATEME and INRDP complement and complete each other in very specific actions; Nevertheless it is the CRDP's which take care of OFRATEME material sales mentioned above ; also, there is a film library in each CRDP which diffuse 16 mm films :

each CRDP is thus a veritable regional media-library of sales and loan. A series of agreements had to be made between OFRATEME and INRDP, so that the CRDP's could sell OFRATEME productions (as well as a few RTS/promotion products) and also serve as its agents of information.

OFRATEME's evolution "toward commercial means" does not only manifest itself in this ambiguous relationship with INRDP. The push given to the sales promotion department and the present renovation of the Central Educational Film Library, underline, through the desire to ameliorate the accounting and expand its own resources, a tendency toward becoming a professional independent institution.

## 3 - CENTRAL EDUCATIONAL FILM LIBRARY

### 3.1 Film sources

Purchase of films and of copyrights (case 1) participation in the production of accepted film projects (outside team) (case 2). Production of films on order with the "Excise Film Office" (case 3)

### 3.2 Decision-making level

3.2.1. In the three cases, decisions are made on the Ministerial level of different Ministries concerned with educational films / National Education, Cultural Affairs, Commerce, Environment, State, and the National Cinematographical Center (CNC) ), which serve as catalysers :

- centralization and advice of each Ministry,
- selection and administration (often also dividing up of expenses when several Ministries are interested) of finances : establishment of the budget,
- establishment of a contract,
- issuance of deposit certificates.

The interministerial reunion meets every two months at the CNC to preside over the projects.

3.2.2. Selection Criterias

At this level, it is the Ministries directors who decide the purchase and productions of products. The users are not represented, and we do not know how and in what criterias each ministry's opinion is taken into account.

OFRATEME provides with each project request two types of opinions :

a) a pedagogic opinion :

> "The pedagogic audio-visual production control will be organized by the latter while calling upon the Ministerial Commissions for Educational Method Studies transfered to the INRDP" (Article 7 decree relative to the Services and Means of the INRDP, National Ministry of Education, December 30, 1970)

The ministerial education commission is actuated by exercising and retired professors. The films, already produced or about to be, are examined uniquely on the pedagogic values.

b) A financial opinion :

Estimates are made by the Programmation and Prevision Service, starting from cost evaluation and financial break downs made by the producer himself, in the case of a film project.

### 3.2.3. Legal and financial modalities

Case 1 : upon acceptance of the film, a contract is signed with the C.N.C.* the scholastic use copyrights for France and "outside" are bought. The sum is paid upon the signing of the contract, when the producer has obtained the deposit certificate, after having provided the original materials. OFRATEME takes care of the printing as well as the duplication.

Case 2 :
- concerning participation in a production and not in a co-production.
- the financial part is independent : upon the accord of the ministerial commission, it is up to the Programmation and prevision Service which discusses it with the C.N.C. and the ministerial commission in order to establish the budget. If the producer accepts the sum, the contract is written up by the C.N.C. between the producer and the concerned ministries.
- the producer is then in complete charge. But he is under two controls :

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* National Cinematographic Center

- the pedagogic control : respect of the "pedagogic rhythm" according to the project script and technical splices, deposited with either the C.N.C. or with OFRATEME.
  Who controls ?

- the budget control : Payments are made by instalments :

  1 - 50 % of the sum is delivered upon signing

  2 - the producer submits the mounted work copy to the OFRATEME commission plus the film commentary project to be synchronized with the images. If the concerned ministerial commission accepts it, a written request is made to the C.N.C. for the payment of the second intalment, amounting to 20 % of the sum.
  It's at this stage that refusal and project abandons usually occur.

  3 - the third instalment (10 % of the total) is paid after the presentation of the definitive optic work copy, "copy zero" or "standard copy". Refusal at this stage is very rare.

  4 - Payment of the last instalment of 20 % is made after :

    - the acquisition of "copy zero" by the highest participating Ministry (amiable arrangements are made when it's an equal participation).

    - deposit of the original material (original 35 mm and master sound tape) to the laboratory, and delivery of the first 16 mm copy.

    - deposit of the certificate (acceptance of the control copy).

In this case, like in case 3, it is a matter of anticipatory purchase of copyrights. It covers all educational use, educational T.V. included, for a duration of 40 years, and for the whole world, except when the producer is sure to successfully sell his film in several countries (switzerland, Belgium etc.) all the clauses are modulated in function of the length and original format of the film. The copyright price indirectly depends on the pedagogic value of the materials pedagogic criterias and budget fixed are more seriously taken into account than production costs or technical quality of the film. Up to now, the range was between 3.500 F and 5.500 F.

If the budget is expanded, the restructuring of copyright prices will be attempted.

### 3.2.4. Determination of the number of copies to be printed

For the 4th instalment of 20 % :

- the independent Ministries ordered from the original elements
    - an internegative (color) or a proof print (black and white)
    - a recording of the sound

  The producer recuperates these elements or leaves them on deposit in the laboratory

- OFRATEME has also ordered a control copy

- from all this, the number of copies to be made is decided. There has been an evolution in the stocking policy.

. In the past, the number of copies made varied according to the destination of the film and according to "market" demands : they made :

- 25 copies for the 1st and 2nd levels
- 15 copies for the Baccalaureat level
- 10 copies for the technical sector

. Since two years and still now, 10 copies are systematically made for each film and this is provided for from the beginning in the budget.

. The hope for a bigger budget in 1975 forsees the readoption of the "decentralization" system abandoned in 1968 : the distribution of 60 copies among the CRDP's of the province, an the central film library.

### 3.3 Stock volume and number of subscribers in 1973

| | | |
|---|---|---|
| (for 16 mm films) | 1,921 | titles (of which 93 new) |
| | 22,614 | copies (of which 905 new) |
| | 5,456 | subscribers |
| | 112,951 | loans |
| | 1.874,589 | F of reciepts |

## 4 - PERSONNEL

### 4.1 OFRATEME (as of June 1973)

692 employees in the Central services : 312 administrative
281 technical
99 teachers

2.809 employees in the National Center for scholastic television

### 4.2 Central film Library

about 30 employees in 1974

- 6 for shipping
- 9 for verification
- 3 for programmation
- 2 for stocking
- 1 for stock reorganization
- 4 secretaries
- 6 for officering

for a volume of 4000 copies per week comming in, the verification is systematically made whether they are checked back out or not.

## 5 - EXPENSES

| | Results of 1973 |
|---|---|
| **Production of educational documents** | |
| . Personnel ................................ | 11.073,000 |
| . Operational ............................. | 12.270,000 |
| . Other .................................... | 2.000,000 |
| TOTAL | 25.343,000 |
| **Research and training** | |
| . Personnel ................................ | 1.677,800 |
| . Operational ............................. | 657,000 |
| TOTAL | 2.334,800 |
| **Distribution** | |
| . Personnel ................................ | 1.842,600 |
| . Equipment Center for scientific materials | 23.809,499 |
| . Broadcasting on the ORTF transmitors ..... | 9.050,000 |
| . Other .................................... | 2.254,000 |
| TOTAL | 36.956,099 |
| **Learning by mail** | |
| . Teaching personnel and readers........... | 55.727,959 |
| . Other personnel ......................... | 28.695,460 |
| . Printing expenses ....................... | 4.335,636 |
| . Construction, office supplies, materials.. | 12.058,600 |
| . Other .................................... | 1.019,475 |
| . Increasing of stock ..................... | 657,904 |
| TOTAL | 102.495,034 |
| | 18.114,435 |
| Common servi[illegible] | |
| General TOTAL | 185.243,568 |

EOLIENNE EDITIONS
70, Boulevard Saint-Germain
75005 PARIS (633,8320)

## INFORMATION PROVIDED BY MR. DELMAS

### 1 - OBJECTIVES

Since ten years,the EOLIENNE "specialists in Communication Methods for Scholastic Training and Permanent Education", offers services in the short educational films :

- production;
- distribution (sales and loan) of its own products and of foreign ones,
- counceling.

### Main objective

Introduce the short silent film by making it accessible, just like the pocket book, to a maximum of people, and thus create a sort of 3 minute film bank in the field of education on all levels.

The subject matters are mostly science ones :

Astronomy, mathematics, data processing, sports,arts, technology, geography, history, social economy, languages, natural science, human sciences, chemistry.

The users are French and foreign teachers, mostly in "secondary" education : high schools, secondary teaching colleges, technical education teaching schools.

Materials offered :

- educational films

short, silent, 95 % color, films (no more than 4 minutes) are provided in series along with an accompanying booklet. The Super 8 format in generally used, available in cassettes or rolls for sales, while for rent certain films are only available in cassettes (super 8) or in reels (standard 8mm). About 50 % of films are now on cassettes.

(The use of video-cassettes in not presently planned).

- divers media :

"multimedia" : an ensemble (records (45's) plus 12 slides plus booklet)

. trays,
. slide series,
. fixed film.

- projection material :

. from the lesson learned from the American experience (for example, a company came to offering a projector for the purchase of ten films) film sales are stimulated by the promotion of projection apparatus.

2 - STOCK SUPPLIES

- of the 3000 titles in the catalogue, 400 films were produced by the Eolienne.

- the others were bought from about 15 foreign producers, mostly English and American (U.S.A. : BFA, CBS, Walt Disney - G.B. : Gateway, Rank, Mc Millan, Longman Sound Services - West-Germany : FWU, Westerman - Belgium : IVAC - Canada : ONF). All are exclusive contracts for France, Europe and "overseas". Purchase prices depend on the possession of the negatives or internegatives.

- It's been 10 years since its creation yet the catalogue has never had more than 3000 titles. Is there a real market ? Mr DELMAS believes yes, but only in the field of continuous training : either the film is integrated by the professors into their lesson plans ) of this type, it's the physics films that are mostly used (300 titles out of 3000), and also mathematics films which, being made through new pedagogics methods, are easily integrated every where ; or it becomes a cultural instrument serving the "social promotion".

- 60 titles are sold yearly, best seller : mathematics film. On this basis, the stock is renewed 3 times per year, 20 copies are systematically made per title - which also allows an interesting laboratory price.

- Many more sales than loans are made. In the beginning, the renting service was set up as "a low-cost viewing system". (projectors can be provided at the same time). A subscription was taken in order to recieve the films ; in the case of a purchase, a new copy is sent with the loan fees deducted from the sales fee, for the rent copy.

Now, the demand for loans are quite reduced resulting in the imobilization of a large number of loan copies.

## 3 - COSTS

| | |
|---|---|
| . Purchase of one copy at a time | : supplier cost transportation and customs costs profit - margin rarely exeeding 25 %. |
| . Purchase of negative | : production elements are deposited with the laboratory and the price takes into accound printing expenses. |
| . EOLIENNE films | : the price varies according to production costs and "royalties" paid to the producer. |

The sales tax rate for educational films is 33 1/3 %. The sales price of films vary between 112 F and 216 F, most of them being between 140 and 168 F. Shipping is included in the price. The rent system of film/projector operates according to a mobil scale :

| round trip hipping included | from 1 to 9 films | 10 or more films | KODAK projecto |
|---|---|---|---|
| 1 to 9 days : | 20 F | 15 F | 80 F |
| 10 days to 1 month : | 25 F | 20 F | 120 F |
| 1 to 3 month : | 35 F | 25 F | 220 F |

Since October 1974, shipping is paid for by the client. A forewarding agent takes care of imports and exports, except when the package is within the postal limits.

## 4 - AVAILABILITY OF FILMS

- Information method :

  - The general catalogue is a brief summary of materials and subjects, in the shape of a list of available series.
  - A detailed card by title, catalogued in the EOLIENNE files, serves to provide information by phone ; the cards can also be grouped so as to have all elements of a series.
  - A 21 x 27 booklet accompanies each title copy or sent as a means of publicity. It contains :
    - a description of the content ;
    - technical indications not contained in the film ;
    - elements for the use of the film (discussion, animation) with suggestions for the best means of utilization.
  - A viewing studio continuously open, in the Paris office.
  - A system of accord for viewing : films are sent for viewing to possible foreign clients (west Germany, Switzerland, Belgium, Italy, Canada, USA etc.). They are usually establishments specialized in other materials than film.

- Ordering method :

Even if an order is phoned in, it cannot be guaranteed except by the reception of an officially signed order form from the user, the bill will carry this reference number. It's this that provides the major problems for the EOLIENNE , late payments, anarchic order forms (such a department of the University does not recognize professor such and such's order), forwarding of films after expiration of the loan period not respected etc.

## 5 - THE CHOICE OF THE SHORT, SILENT EDUCATIONAL FILM

According to M. DELMAS, there are two types of advantages :

A) Pedagogic : "Saved" or not by the commentator there is no possibility of passive sessions for the public. Students participate more but also the professors have to modiby their pedagogic strategy :

a science professor using the same film for five classes, has five different groups to deal with, and he would not be able to prepare a polyvalent commentary.

B) Economic : The silent film as well as the projectors are less expensive ; silent films can be used more often, for more varried "publics" and goals.

# EUDISED

## 1 - OBJECTIVES

### 1.1 Action :

- Creation of a regional decentralized pedagogic information and documentation network based on the most advanced data-processing techniques and on division of tasks.

- The two, strategies of the European Councils' executive group have been :

  a) the coordination of existing national systems toward "cooperative exchange", for which the elaboration of an adequate administrative structure,

  b) the compatibilization of systems, by easing physical methods of exchange (definition of formats, norms and standards for the exchange of printed and non-printed materials) and the documentary language (compilation of a multilingual thesaurus : English, German, French and Portuguese versions published, Spanish version is presently being programmed into the computer in Geneva, the Arab version is being concidered).

At this moment, all of this is practically defined and set up.

### 1.2 Materials and users concerned :

- documents to be exchanged are :

  . current research projects
  . finished research projects
  . national pilot projects in all educational fields. The documents of member countries are sent to M. VIET.

- to the Maison des Sciences de l'Homme in Paris,- which is charged with the supervision, and which sends the data to London to be programmed for commuter according to the British Bibliography system. The three research categories will be regurlarly diffused starting in 1975 by means of 3 experimental bulletins.

- the target group, throughout the different national agencies, are :
  - people in educational science research
  - administrators responsible for planning
  - teachers.

### 1.3 Forseen action from 1975 until 1978 :

a) continuation of the publication of the bulletins for data relative to research and development of educational matters (current and finished research, pilot-projects) ;

- input of data amounting to about 2000 entries in 1976 and to an average augmentation of 1000 each year.

b) non-printed materials :

- publication of an experimental bulletin beginning in 1976 ;
- programmation of about 3000 entries in 1977, with a following addition of 1500 entries yearly.

Great Britain is the most active member in this action. It is the studies and recommendations of M. GILBERT which were adopted.

The British National Bibliography program is used as is. Certain changes proposed by M. VIET have been refused for financial reasons.

c) Specialized periodical articles :

- a documentary analysis bulletin is also set for 1976 ;
- the input of bibliographical data corresponding to the signalization and/or to the analysis of educational articles will be made to the tune of 6000 entries in 1978, with a predicted increase of 1500 per year.

This will be done on a national scale.

## 2 - INSTITUTIONAL MECHANISM

### 2.1 Network structure

a) at the beginning, the network was concieved as a decentralized system of exchanges, in which 3 intertwined circuits could be distinguished :

- a regional circuit of member states' national committees
- a linguistic circuit where it exists (like DOPAED)
- a specialized circuit (somewhat like ERIC's, when there are specialized centers in an educational field),

b) There quickly appeared the need for a central unit to take care of the following functions :

- coordination between national agencies :
  - . control on the use of the EUDISED multilingual thesaurus and on the conformity to the normes and format, at the level of treatment by national agencies through the use of common input forms ;
  - . administration of the thesaurus, updating normes and format, definition of the software for photostats micro-cards and, computer tapes exchanges, providing logics units for use by national agencies ;
- coordination on the international level, with the systems produced by UNESCO/IBE, UNISIST, OCDE. Once the data is processed into the memory bank on a national level, and copies of magnetic tapes collected and centrally treated, all of these national assets will be fused with the elements obtained, in the field of education, of these international organizations, and the ensemble of the information will be redistributed to the national agencies. Use of the tapes would theoretically be done on a national level, but specific information needs could be satisfied on the central level. Presently, the most efficient relations are carried on with OCDE, of which the data base is available, and whose macro-thesaurus- part on education is between 30 % to 40 % compatible with EUDISED's, and with the BIT, of which 60 % of the data base concerning educational sciences, is compatible.

- relationships or "bridges" with other networks, like the ERIC system, but on a long term basis. An inquiry is being presently conducted on those agencies possessing or considering the purchase of ERIC micro-cards in Europe. As far as ERIC tapes, the demand is still very low. In France, for example, there is no more than one or two requests yearly and the tapes possessed by the National Center for Scientific Research (CNRS France) have been transfered to stockholm (which groups and administers these orders).

The idea of a circuit specialized by subject matter has been abandoned because of the variety and variation of programs in Europe, and because of the number of organisms that work in a solitary way. (In France : INRDP, CNRS, CREDIF, etc.). The first step is to insure a coordination on the national level. For France, M.VIET has just presented to the Ministry of National Education, a project on the administrative methods needed, on a national scale, made up of a National Committee coordinating tasks (a small team of 2 or 3 members, with information means that would not surpass the capabilities of the CNRS). The same procedure will be used in other countries.

In a parallel manner, studies are being made in member countries on the real needs of the users, the results influencing the structuring of the network.

The more active members are Sweden, England, Germany, and France : It's through these countries that the evolution of the network can be followed in the near futur.

## 2.2 Institutional mechanism :

- In 1975 the European Council concidered its mission as terminated. To go from the experimental to the operational phase, the European Community Commission is ready to assume the role of the central unit which we have just discussed. Since Strasbourg does not offer the necessary facilities, the coordination will be carried out from Luxenbourg, the educational field being added to the nuclear energy and metallurgy fields.

- The financing was, up to 1975, made on the basis of contributions from each member state to the European Council. Starting from 1976, it's an "Education Committee", created from the two General Directorships of Education and

Information (D612 and D613). They would make the decisions and decide on the budget, on the basis of the financing by the 9 member states and on participations from 6 non member countries who would like to become associated members.

- The Central Unit's budget is the subject of a study being made by a British expert. It will be completed in March - April 1975. Costs will be very difficult to establish on the national as well as central levels.
- The European Council, in order to insure the coordination, will place on its administrative and budgetary account, the meetings of experts from states participating in the EUDISED project.

Appendix 12

# ASSOCIATION OF UNIVERSITIES PARTIALLY OR WHOLLY IN THE FRENCH LANGUAGE
## (AUPELF)

AUPELF, which groups a large number of the universities of French speaking countries, is in the process of studying the details of a media Data Bank.

Objectives : - To take stock of existing documents and producers/diffusers,

- to make an evaluation of the potential users' needs : teachers and students, "self taught", adults, researchers, public, private and training educational facilities of all levels, libraries and documentation centers.

Content : - documents for didactics use for rent or sale. Documents for simple exchange will be eliminated; They will be mentioned in "Brief News" a bulletin with a 3000 copy circulation in the Universities.

- structured documents : It was decided not to make thematic registrations of sequences and images likely to illustrate a program.

Medium and Media : - the adoption of an extensive or restrictive interpretation of audio-visual documentation.

Work plan : - a collection of information on producers/diffusers/editors is made by the universities. The members of AIMAV divide up this task for the U.S.A. and Canada. AUPELF will centralize and sort out the collection in France. A work committee will, at the same time, study the different classification and cataloguing systems.

AUPELF would like to give rise, in universities, to programs which would be transmitted by satellite. (Notably by "Symphony"). An international collective program of 13 programs on African Litterature has already been produced.

## C. I. M. E.
## INTERNATIONAL COUNCIL ON TEACHING METHODS

Sources : - Media International - volume 3 n°4 -
"Coproduction of audio-visual programs".
MEDIA : n°59-60. June 1974

Center : 29, rue d'Ulm - 75005 - PARIS

Treasury : Erlachstrasse 21 - BERNE

Created in 1950, it didn't acquire its present name untill 1970.

The CIME is a non-governmental international Organization which being a member of CICT, benefits from a consultative A status from UNESCO.

It's a sort of a representative club of all large educational and technological national organisms concerned with educational audio-visual means.

It is made up of one representative from each organism.

- Bulletin of the International Bureau for Education 44th year. 4 quarter 1970. n°177 "The technology of Education" - pp 257,258.
- Accord defining educational film exchanges, aprouved during the annual General Assembly in Tunis, 1972.
- petition of M. LEFRANC - Grenoble - UNESCO/CICT 23 - 29/09/74

## 1 - OBJECTIVES

### 1.1 Officially defined goals :

Among those, we mention the following :

- promote on a world-wide basis contacts between people responsible, by their profession, for the promotion, production, distribution, research or use of modern teaching methods in member states ;
- set up an international organism destined to favor echange of ideas and experiences in the field of educational technology ;
- promote the better integration of modern methods in education ;
- promote the use of modern methods in schools thanks to teacher training and future teachers training in these methods ;
- ameliorate the distribution of modern teaching methods throughout the world thanks to international projects of coproduction and exchange.

### 1.2 To whom it concerns

- concerning film exchanges, co- productions and Broadcasts, its main objective, CIME unites 32 member countries, and associate members (national educational organizations like OFRATEME, FWU..., teachers, equipment and document producers).
- concerning exchange of ideas and experiences, CIME collaborates with international organizations (for studies, reports, seminars) : UNESCO, CICT, UNICEF, AIES, International Center for Photography, International Federation for the Processing of Information etc.

## 2 - FUNCTIONS

### 2.1 Information

- "audio-visual methods", official CIME quarterly revue, published in London, Each number is dedicated to one theme.

Examples : - 8mm film ;
- retro projectors ;
- system methods in education ;
- the combined use of audio-visual methods.

- Studies and reports made in cooperation with international organizations

  Examples :
  - vocabulary of technical terms in the field of educational films and other audio-visual methods (in 7 languages) ;
  - the development state of the educational film in member countries ;
  - report on the educational film's contribution to 1st level education ;
  - report on international coproduction methods of educational films ;
  - report on the organization of audio-visual services in Europe.

## 2.2 Promotion and development

- International annual congress brought together under the patronage and with the support of UNESCO, and tackling specific themes ;

  Examples :
  - Education today and tomorrow : planning for the use of audio-visual methods. PARIS 1963.
  - Planning and organizing audio-visual services LONDON 1970.
  - New methods in the service of technical education BUDAPEST 1973.
  - The use of new means and methods for pre-school education MUNICH 1974.
  - "Resource based on learning". GLASGOW 1975.
- National congresses
- Educational film week, organized annually since 1965 : showing of the best films sent by member countries.
- General yearly assembly of CIME
- CIME work shops (6 to 8 people)
  - On the administration, management of audio-visual services, at the educational level of the first or second degree, and at the present time, enlargement into higher education.

- On the harmonizing of equipment : tests in three big laboratories (Munich, London, Paris - OFRATEME)
- Video Group
- Audio-visual means and developing countries

But CIME's main actions occur mostly in matters of co-production and distribution.

2.3 Co-production :

CIME encourages both isolated and film series co-productions which, for geographical, scientific or financial reasons, can only be produced by the pooling of the means of several or all members.

a) - we will refer you to an article by Mr JONGBLOED (Director of the Nederland Instituut voo Audiovisuale in the Hague), appearing in International Media (Media- June 1974). The three first experiences of multilateral co-production are described, with a list of obstacles, gains and positive efforts, errors and sucesses, and a certain number of recommendations.

b) - another article by J. de GRAVAILLE appearing in the same magazine, offers an example of bilateral co-production between two countries member of CIME, Holland and Belgium.

2.4 Distribution : exchange of educational films : One of the major CIME objectives is to facilitate exchanges between member countries, these films belong to two categories :

a) Nature of the films :

- Free-exchange films : they are available to members at laboratory cost price with a justified administrative fee added on (which connot go over 15 % of the cost price and totally non-profit-making), but with no copyright fees. It's a non-commercial educational distribution, by a member organization.

  All members are expected to prepare a list of films which they accept to make available to all other members without payment of copyrights. This list is sent to the Secretariat before November 1st of each year, for publication in January.

The catalogue of these films includes around 650 titles.

Conditions for delivery of films are directly negociated between the members.

- Other films : they are films whose diffusion is limited in one way or another, for example by copyrights, by a restriction in the distribution, by financement of the production, etc.

Members must help each other acquire them in the best possible conditions.

They undertake to prepare a list of films in this category which they recommand for international distribution.

They also undertake to provide, on demand, the most recent productions list which they produced or acquired. Information or negotiations concerning these films are carried out between concerned members.

b) - The exchange agreement concerns the rights to use films for projection or for close-circuit T.V. Exchanges include copyright transfers and the exclusive distribution, by the member organization in its own country. Copyrights are transfered for a period of 40 years.

In all cases members must grant each other priority.

- For example, before signing an agreement for distribution with a commercial organism in a member country. One has to be sure that the member organism of that country is not interested by the acquisition of this film.
- All audio-or visual modifications of the film must be the result of an accord between the two concerned countries. Members could make versions in their own language of films acquired. It's possible for member countries belonging to the same linguistic group to make an agreement permitting the sharing of costs for the establishment of these versions.

Membership in CIME is very advanteous, from a financial point of view, dues asked from each member country being minimal, and films being available at very low cost.

A reference film library was established with the help of UNESCO. Member countries deposit most representative productions there.

# EUROPEAN UNION OF RADIO BROADCASTING-EUR

Origin of the information : Brochure edited for the 25th session
of the EUR. General Assembly.
Interview with Mrs. LARUE and Mr VEIHL,
EUR, GENEVA.

## 1 - OBJECTIVES OF THE E.U.R.

The European Union of Radio Broadcasting is a non-governmental international organization whose purpose is to back in all fields of interest, the use of the radio broadcasting service. The union, under Swiss law, and by its own regulations does not have any political or commercial aspirations.

Only organisms of countries members of the International Telecommunications Union (ITU), operating, with the authorization of the authorities, a radio broadcasting service can be members. Organisms concidered fulfilling these conditions are those that take on general responsibility and production of programs broadcasted by one or several transmitters which he has available on a permanent basis. The service must be of national importance and quality.

Conforming to the regulations, the EUR has for its main objectives :

a) to back, in all fields, the interests of radio broadcasting services operators and establish ties with other operators or their groups ;

b) to promote and coordinate studies concerning all radio broadcasting questions and insure information exchange on all matters of General interest for radio broadcasting service ;

c) take and elaborate all necessary measures for the development of radio broadcasting in all its shapes ;

d) to look for a solution for all possible disagreements through the means of international collaboration ;

e) to use its influence to insure the respect by its members of all international agreements relative to all matters concerning radio broadcasting.

## 2 - STRUCTURE OF E.U.R.

The main EUR organs are the General Assembly, the Administrative Council and four commissions. Additionally the Permanent Services of the Union are made up of 200 agents, divided up between Administrative Office and the Legal Affairs Service in Geneva and the Technical Center in Brussels.

## The General Assembly

Supreme organ of the EUR, the General Assembly groups the ensemble of the members. It meets once yearly in regular session and could be brought together for extraordinary sessions by decision of the president or by a petition to him by at least 1/3 of the members. The General Assembly approuves decisions made by the Administrative Council, finances activity programs and the budget for the next project. It also establishes membership dues and elects, the president and vice-presidents, for a two year term, as well as the members of the Administrative Council. Only active members vote in the General Assembly.

## The president and vice-presidents

A president and 2 vice-presidents are elected from the representatives of member organisms by the General Assembly.

## The Administrative Council

The ensemble of EUR members are represented by its administrators, among whom the president and 2 vice-presidents. All organisms having a seat in the Administrative Council appoint an administrator and a substitute. Organisms seated in the Council are elected among active members for four consecutive exercises.

The Administrative Council meets at least twice a year and holds all the rights and powers of the General Assembly in between the latter's regular sessions. It executes the General Assembly's decisions, takes care of admissions or withdrawal of memberships, proposes to the Assembly the creation of commissions, creates study groups, examines commission reports and decides on following actions, prepares temporary activity programs and budget projects for the next exercise.

## Study Groups

The Administrative Council includes a number of study groups, appointed according to the needs and directly coming from it. The study groups presently operating are charged with financial questions as well as dividing up Eurovision costs for assistance to radiobroadcasting organisms in developing countries, problems concerning satellites, Union decrees. Other groups can also become operational for the treatment of, for example, the distribution of programs by cable or even EUR. relations with other international organisms.

## Commissions

The main activities of the Union go through four specialized permanent commissions, of a purely advisory nature. These report to the Administrative Council on all questions relative to their duties. The Legal Commission and the Technical Commission were formed in 1950. In 1953 was created the Program Commission which included a "radio" study group. It is in 1964 that this study group become the Radio Programs Commission, while the Program Commission was, itself, being changed into the Television Programs Commission. Collaborating with these commissions are work groups, sub-groups, or ad hoc groups charged with examining very specific activities and problems demanding collaboration with experts of different radio broadcasting and television organisms.

Given that certain activities are more or less permanent and constantly developing, numerous work groups became quasi permanent also, although theoretically, they should cease to exist along with the term of their mandate, after presentation of the final report. This isn't the case for sub-groups or ad-hoc groups, whose objectives are of short duration. All organisms have the right to be represented in the Commissions, but only specially designated organisms can participate in group and sub-group studies.

Each commission decides upon its own procedures and work methods and, when it includes a head, this last is elected by secret ballot for 2 consecutive excercises.

## Permanent services

Permanent personnel take care of the many tasks devolved on the EUR and coordinates work carried out by the Union with the participation of its members. Each of the three permanent services - administrative office, legal affairs service in Geneva, technical center in Brussels - has at its head a director.

The permanent services include experts of divers fields : administrators, engineers, lawyers, and specialists in the planning and coordination of international program exchanges. These collaborators, belonging to different nationalities, are recruted, for a permanent position from the personnel of member organisms.

## 3 - FINANCING OF THE ORGANIZATION

Even if EUR is a non-profit association, the accomplishment of its many tasks never the less demands the mobilization of financial means sometimes quite conciderable ; its financing is in direct correlation with the nature of its activities, as shown below :

### General activities

This concerns activities for all the members, including, mostly, general secretariat, relations with both members and outside organisms, meetings of statuary organs, publications, studies and assistance in the legal, technical, and radio program fields.

Expenses incured from these activities are in the shape of meeting costs, personnel, offices, services and materials, in the regular budget, which is financed by :

- dues from active members
- contributions from associate members
- interest from its own funds
- sales of publications and divers receipts

Revenues accumulated from taxes on receiving sets, determine the membership dues of active members having them. These dues are calculated in function of the number of paying liscences in that country, altered by a balancing coefficient according to whether it's a question of television, radio or combined taxes. The table of category units of dues is part of the Union decrees ; the value of a unit of dues is adapted periodically to the volume of annual expenses.

For the other active members, the dues are set by the Administrative Council according to the importance of services sought by them and also of the particular situation of each.

Associated members participate in Union expenses in function of the services they receive from it and of their financial resources. Their contribution is in the shape of an annual payment whose sum is set by the Administrative Council each case separately.

### Specific activities

These activities only concern those active or associated members who desire to participate in them, as well as the Financial costs which derive. They are mainly direct exchanges of T.V. programs originating in Europe, radio broadcasting programs produced outside the European zone, educational or cultural film and program exchanges as well as those of radio programs. We signal here that a very large part of the financial means spent, concern news subjects used by member organisms for their television news broadcasts exchanges, which today, are taking on universal dimensions.

These different activities engender the following expenses :

- Expenses of coordinating television programs exchanges
- Expenses of visual, sound and satellite circuits
- Expenses of program production and copyright purchase

Expenses of coordinating television program exchanges are those of telecommunications, personnel, materials, meetings, offices and services directly related to program exchanges. They belong to a special budget financed by means of advances paid at the beginning of each project by permanently participating members. At the end of the excercise, the final accounting is made and differences taken care of. The quota-parts of members is set in function of the number of licences or the number of television sets present in the country, on an appropriate scale. The sound circuit costs are equally set annually.

Visual circuits and satellite costs are regulated periodically between concerned members. The following compensation principle is the basis of the system used :

- The permanent services ask the members to rent the necessary circuits, on a permanent or occasional basis, and to cover the costs with the owners in their respective countries. The bills paid are credited to these members.

- For each broadcast, the circuit costs are billed to the organisms for the duration of their participation in proportion to their unit shares. These units are annually fixed on the basis of the number of licences or television sets present in the country and also taking into account the costs of connection to the network which each member met in the preceding period.

- The balancing of sums to be paid or received by the organisms is made quarterly. the bills are taken care of by the members among themselves following instructions given by the EUR permanent services.

Programs for which copyrights are required, or those requiring production expences are treated separately. This is the case of sports programs, space operations, and most of the programs coming from countries outside the European boradcasting zone. Expenses are divided up between participants according to a method accepted at the time they gave their accord to the project.

Financing of these prgrams is made thanks to advances asked from the participants and from the working capital provided to the Union by regularly participating members of these exchanges.

We can definitely establish that the EUR. applies for its financing a collegial principle, according to which each organism contributes toward the budget not on the basis of expenses he gives rise to but in function of his importance. This importance is determined, we repeat, by the number of licences to receivers or, in the absence of licences, by an estimation of the number of sets (T.V. or radio) served by it.

## 4 - INTERNATIONAL COOPERATION

### Radio

The activities of the EUR in the radio broadcasting field are manifold :

- promotion of radio concerts broadcasted live to all the members desiring it. one of the achievements for the EUR in this field was to encourage (very late : 1973) all countries to relay these broadcasts in stereo.
- common financing by members of opera productions.
- organization of contest to discover new artists.
- creation of a central documentation office on all existing materials in the music libraries of the members.
- support for festivals and forums.
- placing in archives important records of contemporary history to insure their conservation in their original form.

### Television

- News exchanges : since 1958, exchanges of televised news items between EUR members keep growing. There is a coordinating EUR center for televised news set up in NEW YORK since 1970. Since 1971 exchanges are also made with Latin America. Intervision (Eastern Europe) also participate in these exchanges. The Radio broadcasting Union of Arab Countries officially exists since 1974. 4733 subjects (including 2924 provided by news film agencies) were broadcasted by organisms in the European broadcasting zone in 1973, to which must be added 147 subjects provided by North America, Japan and Latin America, 125 from Intervision and 347 from divers sources ; the number of receptions for this category, for the same year was 68,155.

- Programs : 663 programs (sports, music, opera, etc., were broadcasted in 1973 (1164 hours) - festivals, "Jeux sans frontières", (Games without borders) (100 million T.V. spectators for the finals), olympic games, competitive sports, special operations (Apollo, first man on the moon, etc.) are other exchanges made possible through the E.U.R.

Other Activities

- "Séminaire de Bâle" : a place for exchange of experiences, opinions and methods, it permits the setting up of efficient educational methods (each year since 1962) which lead to the renovation of traditional pedagogics. At the same time theoretical and rich in applied studies deriving from experiments and examples from different countries, it is a veritable multinational educational television laboratory.
- Studios for producers and directors of programs for the youth (every 2 years)
- EUR projection sessions (yearly in Milan) which include all the categories of programs produced by or for the EUR active members.
- viewing sessions guided toward the sharing of experiences by production specialists.

## 5 - LEGAL ACTIVITIES

The judicial commission of the EUR, which meets twice yearly, is made up of jurists from organisms of the whole world. Their job is not only to insure the legality of the programs and the legal security of their circulation, but also to find frameworks which ease the exchanges of radio and television program broadcasts between organisms.

### "Intelectual" copyrights

Legislation concerning literary and artistic rights and "neighboring rights" vary from one country to the other but present some common points : Membership of the countries in the Bern Convention or the Universal Convention. The judicial committee has participated in studies aimed toward the revision of these conventions (Stockholm 1967, Paris 1971) by preparing reports stating EUR members' vues, by defining, along with national organizations, provisions which take into account the needs of radio broadcasting and of exchanges. This commission worked toward the elaboration of international agreements (The European Council one, for example) which satisfy the specific needs (program exchanges by means of television films, protection of television broadcasts etc.).

## Circulation of programs

The commission has established model-contracts with international groups, representing copyrights and interests involved by the broadcasting of a program and the foreign transmission of sound and visual recordings (International Bureau of Mecanical Editions, International Editor's Union, International Federation of Artists, musicians, actors etc.). These contracts have often served as models for the national organisms.

## Other fields of activities for the judicial commission

Let us mention among others :

- relations with organizers of sporting events.
- problems caused by satellite relays, establishment of tariffs for use of space circuits, problems caused by the reception of programs by stations outside the membership, legal problems created by the use of extra-atomspheric space, etc.
- non-hertzien distribution of programs (by cable or teledistribution).
- special status for developing Countries in order to allow them to benefit from radio broadcasting exchanges without drawing too much on the state's budget, copyright legislation in Africa, Asia, special agreements made during the revision of the Copyright Conventions in Paris, etc.
- defining positons on different projects and studies in these fields by the commission in Brussels.

## 6 - TECHNICAL ACTIVITIES

The EUR Technical commission (in Brussels) has multiple functions

- Exploitation and control
  - Eurovision : control center of Eurovision- technical coordination of Eurovision.
  - Control for the frequencies spectrum : monitoring and measuring center.
- Studies and research
  - recordings : sound programs on magnetic tape, video tapes and films for television programs, new recording methods.

- international connections : exploitation and broadcasting on international networks (intercontinental and European).
- propagation in metric, decimetric, centimetric wavelengths - ionospheric propagation in kilometric, hectometric, and metric wave lengths.
- protection of the reception : radio broadcasting with modulated amplification, sound and television with frequency modulation, fight against industrial parasites.
- new radio system : tetraphonic and other systems, traffic reports,
- satellites : a satellite project for Eurovision, radio broadcasting by satellite.
- television and sound numeric codings.

- Publications
  - EUR technical magazine
  - monographies, documents, technical information sheets.
  - lists of stations (European radio broadcasting zone).

## 7 - EUROVISION

Created in 1950 (with temporary connections of 150 kilometers, Eurovision now disposes of a network connecting 25 countries (Europe and North Africa) by land circuits measuring more than 200,000 kilometers (of which 13,000 are of a permanent network) serving 10,000 stations, 90 million TV sets, and 300 millions potential viewers. This network is connected to Intervision and numerous non European networks.

# NORDISK VOKSEN- UNDERVISNINGSPROSJEKT (NOVU)

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(CCC/TE (75) 2 : Translation of appendix 3 of Mr Garnier's study
CCC/TE (74) 23)
The element of cooperation in the Nordic project NOVU

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By Mr Handal

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The NOVU project is a Nordic adult education project (Nordisk Voksen - Undervisnings - prosjekt) carried out in cooperation between Denmark, Finland, Norway and Sweden. The beginning of the project was a result of recommendations made during the last of a series of workshops on the use of multi-media systems in adult education, which took place in Munich in 1970 through the initiative of the European Council.

In each of the four countries, a limited executive group was created for the project and a project director hired on a full-time basis. The executive groups are in contact with different organizations/ institutions of the four countries (contacts varying from a very precise association with a broadcasting organism in one case, to an almost independent position in another). In all the countries, rapports have also been established with the Ministry of Education, so as to insure official support for the project.

After a first year of national financing, the project is now entirely financed through the Nordic cultural cooperation treaty.

The national executive groups make up a Nordic work group, creating general working plans for the project and dividing up, among national groups, both the tasks and financing relative to the project. This Nordic work group is a relatively informal institution, without a secretariat, meeting habitually twice yearly. Between meetings, contact is mantained by correspondance and by means of occasional meetings of project directors.

The functions of the project are :

a) to try out a practical procedure for the planning and putting to work and evaluating a multi- media action for adults founded on "a systematic approach" described in the report made during the 4th study workshop on the application of conjugated educational systems... etc., which took place in Munich in April/May 1970.

b) to plan, carry out and evaluate this project in one or several participating countries ;

through this procedure :

- to test the applicability of the model in real live practice and to suggest, in the case of failure, the revisions,
- to elaborate a practical multi-media cours for adults,
- to train personnel in the necessary work methods for these projects.

At the same time, the project will also be an example of multinational cooperation in this field and will provide a test area for possible advantages and eventual problems inherent in this cooperation.

On the basis of a profound analysis of needs, the theme chosen for this action is : "Rapport between youth and adults". It treats problems relative to the generation gap and concentrates on a series of six fields of questions susceptible in causing problems in matters or relations, particularly between parents and their young children.

In the context of this present note, we will not treat the elaboration of the project, the emphasis will be placed on the element of cooperation of the project, in the sence that it motivates a more general discussion and an evaluation of the efforts accomplished toward co-production (or rather co-elaboration) of multi-media courses. We give below examples of cooperation of the two following types :

- between different countries
- between different production agencies of one country

In order to discuss these experiences, it is necessary to define more precisely the term co-production or co-elaboration.

Figure I gives a general example of a well known model for the elaboration of an educational program or material. To the right of this model, we divided up the elaboration into several phases : planning, preparation, production, putting to work and evaluation. This differentiation is somewhat artificial in procedure of this type. Besides, the evaluation takes place during the whole procedure and not only at the end, as the model might suggest.

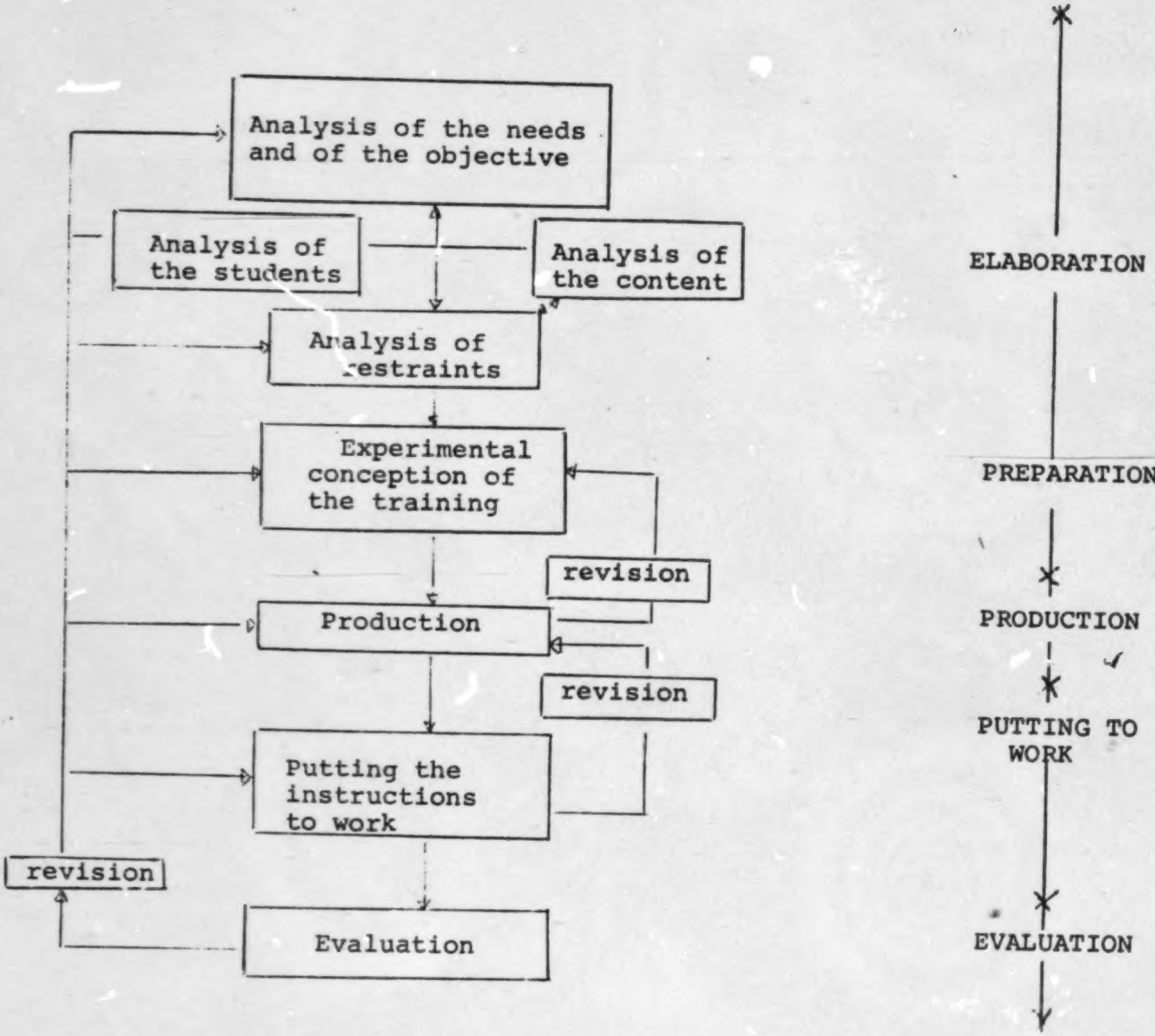


Fig. 1 : Example of a procedural model of teaching material elaboration and/or teaching/training.

In this model, the term "production" includes the elaboration and modification of manuscripts concerning divers media used and the technical production of products used for the courses, such as TV programs, radio programs, works, programmed texts, series of recorded tapes, slides, etc. It is important to note that a large part of the elaboration was made before the production (in this sence) started and that the educational effort which this project constitutes is not finished until the production is successfully concluded.

## Cooperation between countries

We briefly mention that, in the NOVU project, the cooperation between countries is particularly important during the planning, preparation and evaluation stages, while the productions and realizations are carried out on a national basis.

## 1 - PLANNING

a) In the beginning, the general plans of the project were established in cooperation between the countries of the Nordic work groups. It is also on this plan that inquiries, judged necessary for analysis of the needs, were elaborated. The first step in this analysis - which was carried out by experts- was made in Denmark, Norway and Sweden. The second Step - which included the target group (adults and children having received primary education and living in family) - was carried out in Sweden and Norway, and following that, also in Finland in order to equally validate the results for the Finish target group The third step - also at the target group level - was also carried out in Norway and Sweden. All inquiries were made by means of questionnaires calling for either letter or phone replies.

A more and more specific description of the problems, suggested by the experts and future participants as being appropriate for the cours, was provided from these series of inquiries. Thanks to the division of tasks between the countries and the degree of correspondance between national inquiry results, it was possible to obtain a relatively large and firm basis for decisions made concerning the themes of the cours and possible future variations on these themes from one country to another without it being necessary for each country to carry on research on a national level.

b) 1) The definition of objectives and content is more complex. Groups of problems having been established, five to six themes were chosen for the cours. These themes were divided up among the countries for further study and a new definition of objectives, as well as an analysis of an appropriate content. Nevertheless, it was found difficult to formulate objects for the cours in a coherent manner, because the "taxonomy" or "format" of those objectives agreed upon in advance were not shown to be efficient, and also because the theme chosen (relative to the generation gap problem) did not easily lend itself to current procedures used for defining educational objectives.

Besides, Denmark and Finland had chosen - on the basis of analysis results of their needs - themes specifically appropriate for their countries, while Norway and Sweden chose more analogous themes for their courses.

Because of the difference of attitudes adopted toaward the problem of the description of objectives, as well as its consequences, this question has given rise to important discussions on principles, which would not have occured had each country worked alone. This disagreement and divergence of opinions has led to a solution made up of a very general formulation of objectives and the institution of a new bi-leveled "taxonomy" of these objectives. On these basis the formulation of objectives was made nationally.

2) For the analysis of the content, the cooperation was carried out in the shape of division of tasks (particularly between Norway and Sweden) for the establishement of what were called "base manuscripts". These can not be assimilated into a synoptic table, but they are "media-neutral", and indicate important problems to be treated, possible explanation of phenomena, experiments or research results, examples of typical situations likely to illustrate the theme, etc. In other words, these "manuscripts" try to structure the effective field and thereby give it the appropriate content, following that, the different media producers will examine how best to treat this content in the divers media and manuscripts oriented toward media will then be produced from the original manuscripts as well as from other ideas provided by the authors.

For the five themes common to both Norway and Sweden, one Country was charged with two of the base manuscripts while the other was charged with three. All the manuscripts were exchanged among all four countries, which were free to use them as they saw fit.

At the preparatory stage, a certain cooperation was also excercised. The conception of the cours was discussed during meetings and through exchanges of notes between the groups. Also, experimental productions were elaborated for the use of divers combinations of media and the results of these trials were diffused. For example, in Sweden, the combination of T.V. programs and taped sound programs, used in different sequences at the heart of the study group, was tried. In Norway, different methods of combining a T.V. program with two short texts, so as to structure a group discussion, were tried. Results from these inquiries were then used - at the same time as other factors such as those provided by the national framework - as a point of departure for national decisions on the conception of the cours.

3) Meanwhile, during the "production" and "realization" phases, the work was mostly done on the national level. On the basis of the "base manuscripts", the different national groups elaborated the cours, leaving the writting of scenarios as well as technical aspects of production to divers production agen-

We will latter detail the manner by which this phase was carried out. Nevertheless, it is important to note that the nordic work group has judged inoportune the treatment of the entire project as a nordic coproduction. The reasons for this are the following :

- The differences between the courses elaborated during the preceding phases made impossible the production of an identical cours in each country.
- The linguistic differences - as small as they may be between the Scandinavian countries - would nevertheless render impossible the common use of materials in their original language and would also become an obstacle to co-production because the majority of the material was presented in the shape of media (brochures, radio, etc.), which would lead to an entirely new technical production after translation ;
- Given the fact that differences in the conception of the cours exist between the countries, for example in the use of different media, profits, to be made from a centralized production are small.

4) For the realization phase, the project was necessarily carried out nationally. It is almost impossible to foresee a coordination between countries, and which, if it was possible, would impose very strict conditions. The realization of the cours will take place in the spring 1974 in Finland and autumn 1974 in the three other countries.

5) Nevertheless, the cooperation is renewed for the evaluation phase. During the elaboration of the project, a continuous planning process toward the evaluation was carried out. As much as will permit the different national courses, a conscious effort was made toward the planning and execution of the evaluation in a way as to make the results comparable between the countries. We must wait to see what degree of success this effort will have.

This is the situation in the matter of cooperation between the countries. Even if the cooperation during the first two phases of the project have given definite results, we must still recognize that certain problems came up. (a) some of these problems are due to bad operation of the type of cooperation we tried to excercise, for example the difficulty in observing deadlines, insufficiency of information between the countries concerning decisions made on the national level, lack of funds for a sufficient number of meetings of the nordic workgroup toward the coordination of work, etc. (b) Other problems evolve from the fact that not enough cooperative mesures were applied, not only because of financial reasons, but also because our work was not supported by an existing organization concerning this cooperation. In other words, our efforts for collaboration were directed mainly toward the creation of new ways to exercice cooperation. The absence of a central coordinating organ (secretariat) for the project was also felt.

## Cooperation on a national scale between different production agencies

This part of the report deals mainly with the phase designated in figure 1 under the name of "production " and also with the manner that production for cours material is organized on a national level. As indicated above, the structure of this production varies from one country to another. As an example, we will first give a brief description of the manner in which production is organized in Denmark, in Finland and in Sweden, then a more detailed description of the manner in which it is organized in Norway, where the number of production authorities is probably the highest.

1. In Denmark and in Finland, the national radiobroadcasting organisms are the producers of all cours materials. Radio and television programs as well as printed materials are furnished by these institutions whose production capacities are spread to all the media. The result is that national executive groups cooperate with only one producer. In Finland, the executive group appointed a reference group for production, which provides ideas to the group and indicate, the reactions caused by suggestions and materials being produced.

   In Sweden, the radio and television programs are produced by TRU, in association with a Swedish establishement for teaching by correspondance (Hermods) which is responsible for the texts. The cooperation between TRU and Hermods was previously tried during other projects and the production agents became "close", in a way, because of the previous experiences. A production group made up of NOVU, Hermods and TRU representatives and including authors and editors, was created.

2. a. In Norway, production is provided by the following agencies : the national broadcasting organism (NRK) for radio and television programs, two teaching by correspondance establishments (Norsk Korrespondanseskole (NKS) and Folkets Brevskole (FB) (I) for cours lessons and exercises by correspondance, and an editing house (Gyldendal) (I) for a pocket book and the national fim center (SF) for sound montages. Given that the NOVU executive group of Norway does not enjoy official status and is not legally tied to any institution, the group could not play the role of "entrepreneur" for production agencies. On top of that, the NOVU project did not forsee production financing. It is taken care of by each production associate for each part that belongs to him in the production. The NOVU group could only act as a coordinator and "catalyser" for this co-production. This result was achieved by the creation of a forum of cooperation in the shape of a "production group" charged with the ensemble of the production and in which each member was given well defined duties.

(I) these private associates were selected with the help of national editors' associations and teaching by correspondance establishments.

Contribution of the NOVU project to the "pool" of experiences and resources thus created was accomplished by the work done in the preceding phases which materialized, for example, in the "base manuscripts".

Never before have cooperation projects of this type been attempted in this country, but there are examples of other multi-media courses to which different production agencies have participated. However, in those circumstances, the cooperation between partners was highly unsuccessful, each producer worked much more independently of the others in his own medium.

b. Even with the best intentions for the NOVU projects, experiences of this kind of cooperation in the production phase have shown a quantity of problems occuring which diminish the efficiency. It was dificult to mobilize each one of the producers early enough to insure better cooperation. At the beginning, they showed some hesitancy. It's normal, since there was complete lack of procedures for this cooperation and the NOVU project was in no position to sign contracts with the partners in order to begin the work. Because of these problems, the cooperation began a little late and the deadlines were too short to permit discussions and exchange of ideas on a profound basis before preparatory work was begun for each medium. And, as always, because of prolonged production periods, television was the first to make final decisions on content matters and form for this medium.

c. Meanwhile, at this stage of production, the production groups, works in good harmony, meets resularly in order to make decisions, distributes reports, synopsis, projects, etc. for the information of all those interested. We hope that this activity will lead to a better interaction between the products elaborated.

In this part of co-production, NOVU only exercieses a role of coordination in order to insure the well being of the co-operation. The project director and the executive group serve also as a reference group for the producers, making it possible to make sure that the intentions of the project is respected in the training materials.

d. An aditional partner intervenes in the cooperation at the national level in Norway, the national association for organizations of voluntary education (samnenda for studie arbeide SFS).. This central association represents the natural means of communication with the 30 or so national organizations concerned with adult education, organizations concerned with adult education, and, at the same time, it is the central organ representing these organizations.

Along with the SFS and the representatives of production agencies, NOVU formed a coordination group for recrutement efforts and for project execution.

Comments

The experience of the NOVU project showed that, in the elaboration of multi-media systems, the co-production could usefully intervene starting from the first step in the process. The advantages of cooperation between countries is probably more important in the initial rather than the technical production phases. Nevertheless, during this phase, important results could be obtained thanks to the free distribution of manuscripts, ideas and other base materials which can be used in one way or another in the different countries according their proper conditons. There is no doubt that this type of co-production is very supple in comparison with traditional ones in which programs (or other materials) in their definite state have to be adapted to the different conditons of each country.

It is important to note, among others, that the representatives of production agencies must be associated starting from the very beginning of the cours elaboration. Otherwise,it seems difficult to associate them latter without restrictions.

In the NOVU project, each national executive group included a representative of certain radio broadcasting organisms. Thus, the the way for this stage of production was open. In Norway, a large number of different producers were latter associated into the production phase. Those not following the project from the beginning naturally felt more of a stranger to the project once they were included, and it took them a while to realize that it was "their project" that was in question and to assume an effective responsibility. That is why, in future projects, it could be important for the production partners to participate in the elaboration process at an earlier stage. This point also brings out some problems, since the selection of the media for production is not made at the beginning, but is a result of the elaboration process. Consequently, it is difficult to make decisions right away on the type of production which is necessary.

The elaboration of multi-media courses is a long and complex procedure. In the co-development efforts, it is necessary to forsee at which stage of this procedure must cooperation intervene and in what shape, both on the national level and between countries. We hope that the experiences taken from the NOVU project will facilitate these questions, at least as an example pulled from reality.

# ESSENTIAL INTERNATIONAL AND NATIONAL DISPOSITIONS TOWARD COPYRIGHTS

## Excerpt from a report by Mr DEPRAD European Council November 1974

The Copyright elements having been defined, the world organization concerning this right set up, in order to specify the problems involved and try to find solutions to them, to examine this right in relations to the nature of the document used, and in relations to forseable use and finally in relations to the particular situation created when the authors are government employees.

## 1 - THE COPYRIGHT ACCORDING TO THE MEDIUM USED

1.1 Reprography. The abuse of this modern means of reproduction is injurious to authors and editors. We recall that national legislation only allows reproduction - without the consent of the author - for strictly private use of copies and not those destined for collective use. Certain countries, like FRANCE, limit reproduction to just one copy. But in order to efficiently protect the authors,it is necessary to exercise control over the reprography of all the documents. The Federal Republic of Germany and Sweden have found solutions which could serve as examples. In the Federal Republic of Germany, editors and authors made an agreement for a lump sum with the big users of this procedure. In Sweden the accord was made with the school establishments and Universities.

1.2 Photography : theoretically, only those documents having an artistic character are protected. Realistically, jurisprudence permits the protection of most of them, particularly, the "documentaries"which especially concern us. Also, no one can reproduce a photograph without the authorization of its author.

1.3 Records benefit, in many countries, of a legal licence system, that is, when an author has published his work reproduction is permitted without personal authorization, but based on payment of a sum determined either by agreement between the parties, or by administrative authority, or by a legal authority.

There is here a large commodity for record producers.

1.4 Cinematographic and radio-visual works : they are quite similar and their protection is almost identical. The national and international legislation declare that protected are those cinematographic works to which are assimilated works expressed through a procedure analoguous to cinematography (art. 2 of the BERN convention).

The authors of pre-existing works have the exclusive right to authorize adaptation of their creation for the cinema - or for television - as well as their reproduction and public performance of the thus adapted work (art. 14 BERN) concerning films, the author treats with the producer, and becomes co-author and thus receives a remuneration proportional to the receipts. For televised works, the author treats with the producing organism, in general through the intermediary of an agent, he receives a lump sum.

Authors of original works, that is, those created especially for the cinema or television, enjoy moral rights and patrimonial rights over their works. These authors are authors of scenarios, adaptation dialogue, directors, and music composers.

The moral rights are non-negotiable, but the patrimorial rights, also called exploitation rights, are transfered by written contract to the producers. It is to be mentioned that, more often for filmed works, music composers only transfer reproduction rights. The producer is then, depending on the legislation, owner of these exploitation rights or transferee of these rights. Thus in France, the law of circumstantial transfer is applied, while in Italy that of legal transfer and in the Scandinavian countries that of the presumption of total transfer is applied. The regime of a legal license is never applied. But since the producer is owner of the patrimonial rights,the exploitation of his work is wide and convenient.

1.5 Radiobroadcasted works : we find here the same situation as the preceding paragraph with a sensitive difference concerning the legal operation since the operation of a mandatory legal licence is applied here, which facilitates exchanges.

1.6 The Sound-records. The sound-record must be distinguished from the sound-record medium of a previously existing work from that of a new phonographic work. The main problem lies in the easiness of home recording which leads to unauthorized copies without remuneration for authors and producers.

It is up to national legislators to fix a means of protection (copyrights, exclusive rights) and the duration of the protection which can not be less than 20 years from the end of the year of the production of the sound-record or of the year during which it was published for the first time. In order to protect holders of sound-record rights, certain countries are concidering taxing tape recorders (as in West Germany) or magnetic tapes (Italy) or both. But doesn't this risk restraining sales of these materials ? That is why the application of a lump sum remuneration seems preferable.

Finally, we remind that an international convention for the protection of sound-record producers was signed in GENEVA October 29, 1971.

1.7 The video-records. Here also we must distinguish between the video-copy and the videographic work. The first is a video-record medium of a pre-existant work, protected by a copyright. The second is a new work expressed through videography and assimilated to a cinematographic creation (art. 14-14 (b) BERN).

If it concerns a videocopy, the authorization of the author and of the medium producer is needed. If it's a question of a videographic creation, the rules for cinema are applied, particularly, the operation of a legal licence does not apply.

It's the model-contract that regulates the respective rights of each of the concerned parties and the tariffs most often applied are lump sum ones. The societies of authors usually confine to one among them the role of unique intermediary vis-a-vis the video-record producers.

We remind that an international text similar to the one protecting sound-records is being studied. A mandatory licence is being concidered for programs to be used by developing countries for either education or scientific research. A fair and transferable remuneration is forseen.

## 2 - COPYRIGHTS ACCORDING TO THE DESIRED USE OF THE DOCUMENTS

Protection of the authors is insured in all cases. Patrimonial rights can be given up separately or completly, freely or for certain conciderations but the author's authorization is always necessary. The creation can either be used privately or publicly.

2.1 Private use. We won't insist on this type of use. We will simply recall that national and international legislation authorize copies or reproductions of a work strictly for the personal use of the person making the copy. It has been repeatedly shown in this study that modern technical means make it possible for an individual to record either video or sound programs at home without authorization and without remunirating those holding the rights. Concerning educational programs, it is certain that the student often records on sound cassettes or magnetic tape radio broadcasted programs. This is normal. But the "pirating" could surpass limits forseen by legislators, so much so that certain countries have already taken protective mesures, such as West-Germany which taxes the sales of taperecorders, the development of video-cassettes will further aggravate the problem.

2.2 Public use of educational material. There is unanimity in the answers to questionnaires in the request for special treatment for educational software since :

- it constitutes an important pedagogics element
- it is not distributed for lucrative goals
- it favors the development of education in all countries as well as international relations
- the budget of educational establishments is generally very modest.

Of course, at the present time such a system is applied nowhere. But a few changes are likely in certain countries.

Thus concerning recording of sound or video programs, the new legislation of WEST GERMANY authorizes educational establishments to record and reproduce programs for educational purposes with the condition that they be erased or destroyed at the end of the school year. SWITZERLAND is being oriented in the same direction.

In the UNITITED KINGDOM there are no restrictions on recording if only a few copies are made and not on heavy printing apparatus. The Swedish legislation specifies that "in the educational field it is allowed to reproduce for temporary use a published sound recording". The formula "for temporary use" in practice, allows the use and conservation, for a period of up to 3 years, of radio program copies. There is nothing concerning reproduction of television programs for educational use. In the Scandinavian countries "an edited work can be publicly performed either during religious services or for education". Excluded from this licence are "works concieved for the stage and cinematographic works".

Parallel to these dispositions favorable to educational sofware, it is included in international convention and also most national legislation, a system of licences - mandatory for developing countries. Optional for other countries - which facilitate circulation of educational or research documents against a fair remuneration determined by a personal contract or by lump sum tariffs.

Also, countries are progressively taking mesures to simplify the retribution of authors and executers.

The simplest formula consists in the purchase of all rights at the time of the document production.

To avoid the discussion of contract terms between the user and the copyright owner, it is advocated to establish model-conventions and lump sum tariffs taking into account the size of the public affected and the number of forseen users.

Finally, the groupment of authors' societies or producers' unions is recommended for the facilitation and simplification of relations between producers and copyright owners.

## 3 - COPYRIGHTS IN A PUBLIC FUNCTION

In certain countries, particularly in France, a special system of copyrights is applied, which greatly ease exchanges, even though no legal texts specifically treats the status of works created by public employees or by public administrators.

Theoretically, a moral person, the state or an educational establishment can not excercise copyrights except as an agent of the author. But when the state - or one of its tentacles - takes the initiative of a series of educational document, and remunerates the professors with whom it signs contracts, and produces or has produced on its expense the works, it then becomes the owner of the copyrights from the beginning; the different authors are not owners of the work produced. Certain jursprudences go so far as to assimilate occasional collaborators with public employees which permits the administration to have the complete situation of author. The justification of this position is found in the existance of the contract, and in the obligations of the service.

But the professor - public employee, even during the excercise of his functions - remains the sole author of works which he himself creates such as audio-visual aids for his courses (slides, short films, sound cassettes, etc.). In this case, his authorization is needed and he must be accorded copyright, in order to either reproduce or present his works.

# PROBLEMS POSED BY MEDIUM TRANSFERS, DUBBINGS AND EDUCATIONAL PROGRAMS DUPLICATION

The two tables of the following pages (partially borrowed from a European Council study : CC/TE (74)5) consider the different possible tranfers : sound/sound and sound-visual / sound-visual. For each transfer, we tried to indicate if, according to the opinions we were able to gather, the operation is feasable in what we call STUDIO, one, for example which could be installed in an educational A.V.M. exchange organism,or if it requires such materials that only a PROFESSIONAL could do it. We list the necessary materials and the use of these transfers : when the latter seems inexistant to us, the space is barred.

Transfers feasable in a "studio" :

- Copy and duplication of magnetic tapes. The technical problems are sufficiently well overcome here to be able to obtain good quality transfers without going to a professional. The material necessary nevertheless, has to be of a professional quality and it is thus fairly expensive. We can consider the possession of this material profitable starting from a hundred copies monthly, but conciderably less if translations or montages are desired. For just copies, a much higher production is necessary in order to justify the acquisition.

- Film track/magnetic tape
  The production of only sound copies from "talking" or sound films does not creat any major problems.

- Record/magnetic tape
  The production of only sound copies from "talking" or sound films does not creat any major problems.

  The comparison of transfer costs in a studio and the professional cost (about 180 F/hour + tax is being presently charged in France) is generally favorable to the studio.

- Purely visual documents :

  Reproduction of accompanying texts and documents : does not present any particular problems eventhough the equipment necessary for high quality results is quite heavy : offset, aluminium and cardboard engraving material starting from documents, laboratories permitting blow ups, miniturization, weaving... the documents, binding or stapling,..., photocopying.

- photograph reproduction : no problems for black and white. For color and especially for the duplication of slides which necessitate the creation of an internegative in order to obtain good results, the material is quite heavy and a profound study of costs (and comparing them to laboratory costs : in France, at the present time, about 60 F + tax for an internegative of a color slide, and from 20 F + tax to 0.90 F + tax for copies depending on the number) is a necessity before the instalation of such equipment in an E.O.

- slides with sound/slides with sound

  Same as above for the slides but the synchronization could present a problem of quality, idem for the duplication of the materials.

Transfers feasable in a studio but requiring heavy equipment

- magnetic sound/optic track
  The direct transfer generally gives very bad results : Adaptations and sonorization of films require the use of an auditorium (cost in France : 300 F + tax per hour) of which the instalation demands heavy investments.

- record/optic track
  The direct transfer general gives very bad results : Adaptations and sonorization of films require the use of an auditorium (cost in France : 300 F+ tax per hour) of which the instalation demands heavy investments.

- visual materials : the production of posters or pictures of a very large format requires also a very important equipment and would preforably be confined to professionals eventhough no technical problems are posed.

- slides or films/magnetoscope tapes.
  copies of magnetoscoped tapes television cameras permit the recording of slides of film on video tape. Different types of cameras permit the filming of documents, as well as to produce macro-television (or micro), etc.

  The ensemble of this material is still quite expensive and its acquisition demands that one does not only perform transfers but also production (see model 4). Let us set the limits on starting from what importance of materials could require the acquisition of specialized laboratories : for television film : 8m/m, S8, 16 m/m films can be readapted in black and white with medium-heavy materials. For superior formats or color readaptation the material is very heavy.
  (In France, B & W film copy into video tape of 1/2 inch : 300 F + tax an hour + the tape). The handling, and copy of 2 inch or color video-tape is extremely expensive.
  Let us also mention compatibility problems between magnetoscopes (size of the tape, definition of the image, transcoding 50/60 cycles, color procedure).

## Transfers feasable only by professionals

We finally mention transfers requiring such a material that it seems to us that an E.O. will never have sufficient output to justify its acquisition.

- magnetic tape from film track/record
  duplication of records
  (production of light records to accompany a slide series for examle), requires record engravers that only recording industry professionals possess.

- copies or duplication of sound films
  a few examples of prices in France (Price tax not included/meter)

|  | 16 m/m color (copy) | 16 m/m color sound (copy) | 16 m/m B & W sound (copy) | 35 m/m 16 m/m (transfer) |
|---|---|---|---|---|
| standard copy |  | - | - | 3,50 |
| 2 to 6 copies | 1,80 | 1,90 | 1,05 | 1,90 |
| 7 to 24 - | 1,65 | 1,75 | 0,90 | 1,80 |
| 25 or more | 1,55 | 1,60 | 0,75 | 1,65 |

These copies require heavy equipment.

- video tapes/sound films
  by kinoscopy or color process, this transfer is very expensive and one must always forsee the inverse transfer in case of a multi-media production.

- duplication of video tapes - video tape duplicating facilities are rare, especially those working at high speeds.

TRANSFERS SOUND/SOUND

| | MAGNETIC TAPE | FILM TRACKS | RECORDS |
|---|---|---|---|
| MAGNETIC TAPE | necessitates : 2 tape-recorders (warning : speed number of tracks diamater of the reels) compatibility of the tape - recorders<br>Feasable with a small STUDIO<br>permits the changing of speeds..., copies | reader : optical recorder<br>generally not feasable (very bad quality)<br>the sound of a film, the adaptation requires a re- recording in an AUDITORIUM | tape recorder engraving equipment<br>Feasable by a PROFFESSIONAL of records |
| FILM TRACKS | reader : Optic (projector) recording in the standard sought Feasable in a STUDIO generally of a poor quality | Directly or through an intermediary<br>feasable only in a PROFESSIONAL<br>Laboratory (film copy) | PROFFESSIONAL laboratory<br>? |
| RECORDS | 1 turntable<br>1 taperecorder<br>Feasable in a small STUDIO at the production level | taping in a PROFESSIONAL LABORATORY<br>adding sound to film | |
| DUPLICATION | necessitates a copy bench (generally high speed)<br>could be made in a studio<br>VERY | PROFESSIONAL LABORATORIES<br>FREQUENT | USE |

TRANSFERS : VISUEL + SOUND/VISUAL + SOUND

| | SONORIZED SLIDES | SOUND FILMS | VIDEO-TAPE |
|---|---|---|---|
| ONORIZED SLIDES | feasable in a STUDIO but requires a laboratory (profitability in rapport with the number of slides) synchronization problems | difficult to realize in a studio (bad quality)<br>LABORATORY<br>use of slides | necessitates a special camera (feasable in a well equiped studio)<br>in a film |
| OUND FILMS | | copies of film change of format<br>PROFESSIONAL<br>if adaption or change of sound tape<br>AUDITORIUM | Television film feasable in a well equiped studo (B & W 8- S8 - 16 m/m tape 1/2, 3/4, 1 inch)<br>copies of films more than 16 m/m - or incolor - or on video tape of 2 inches requires PROFESSIONAL material very heavy |
| IDEO-TAPE | | feasable (kinescopy, for example) but requires heavy machinery<br>PROFESSIONAL<br>only (very expensive, especially color) | change of tape format feasable in a STUDIO but requires heavy material + compatibility of equipment problems as well as those of transcoding if tape is more than 2 inches<br>PROFESSIONAL |
| UPLICATION | feasable in a STUDIO equiped with a laboratory but the rapport quality/cost /time could make a professional preferable | PROFESSIONAL<br>LABORATORY | copying facilities (very heavy materials) and only in regular speed (up to now). |

# AUTOMATION OF FILM LIBRARIES

The study made by the technico-economics studies Bureau Relative to Audio-Visual (France) being a very voluminous document (73 pages), we will only give here a general outline and brief look. For more details the original document can be consulted (study n°15/1975 of BETEA, INA, Voie des Pilotes. 94360 BRY/S/MARNE).

Study outline

I - Case by case study of a few film libraries (Audio-Visual Santé Service du Film de Recherches Scientifiques - Cinémathèque de l'enseignement - Cinemathèque de l'INA).

II - The non-automated documentary data-processing of two film libraries: The AUS and the SFRS.
(collection of documents - Analysis and indexation - Cataloguing - Diffusion - Orientations).

III - The automated data-processing : Role of the computer

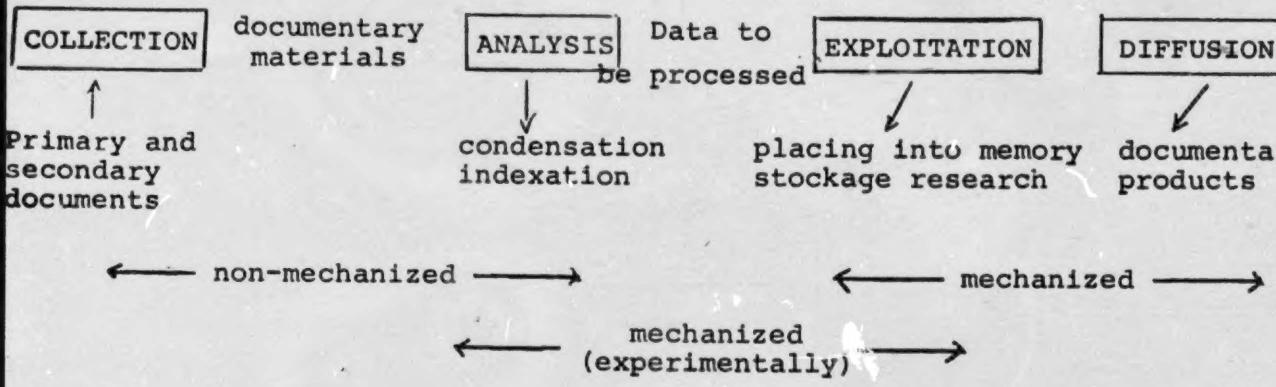
1. The different levels of utilization (automated administration of loans - Analysis and indexation - automated cataloguing - Research and diffusion).
2. A study of needs : work methods.
3. Common objectives for educational film libraries ?

IV - Development of an automation project for an educational film library

(project and realization - limits of the project - stages of automation - collection and selection of documents - input forms - choice of a language and of an Indexation - Output : Edition of results - Integration into a network).

V - Suggestions for the creation of an automated film library (work method - preliminary operations before the launching of the service- Problems of cost evaluation - materials and personnel.

## The documentary chain and mechanization



## The different levels fo utilization

The automated documentary administration is proposed as the first step for automation by BETEA. (III 1.1 pp. 22 to 24). This automated administration of loans could vary from the automation of the seizure of data (perfostyl cards accompanying each document, etc.) terminals in each loan center) to the edition of loan, statistics lists, reminder notes, (non returned documents), etc.

The automation of content analysis of documents - used on an experimental basis for written documents - is still not feasable for sound or visual documents.

The automation of the indexation requires the use of organized documentary language (thesaurus, managed and organized by semantics field non-managed language : ex. : proper names alphabetical list ; "common field" language grouping non-significant words, unusable as unique descriptors, or very general words, common to all fields ; etc.). The non written documents have to be indexed according to an analysis and not according to a title. (etc.) (III 1.2., pp 25,26 - IV, pp 41 to 43).

The automated catalogue implies the standardization of document descriptive cards - which has not even been reached on a national scale- in France. The data - processing requires a logic structurization of the card, the elements of description which will lead to the coding or format must be analysed. This will also require the review of the whole manual file, to sort it out, (III, 1.3 pp 26, 27 and IV, 5 pp 39 to 41).

When the automation of the indexation and of the cataloguing are finished, we can use the computer for documentary research and information diffusion (computer-answer in relations to the ideal answer : "noise" and "silence" problems. "real-time" and "time-sharing" use, edition of indexes, etc.) (III 1.4, pp. 28 to 30).

Stages of automation

Let us quote here the BETEA report : (IV, 3, pp. 37,38)

"A project (of film library automation) necessitates a precise knowledge of the data. Research in the center must be made concerning :

- the users and their needs.
- inventory of documents to be treated, anticipation of the augmentation of the number of documents
- office and personnel possibilities
- budget possibilities
- diffusion method of data output
- the possibilities of purchasing, renting, subscribing to a computer
- the choice of computer
- medium and long range future

One of the principles to keep in mind is that of keeping an option on choices. Automation must be carried out in several steps :

- a first, requiring the least amount of change from the existing situation
- a second, anticipating the medium range requirements, the system being kept open.

Thus first :

- an automated administration of loans
- an automated catalogue
- a retrospective research in the framework of data-processing in "time-sharing"

We should keep in mind that data-processing techniques evolve very quickly, and that a study is accurate for only two or three years.

At the editing of results level, the system in real time (ex. : BADADUQ appendix 4 of our study) is shown as a very expensive one and to be programmed only in a second stage, the first being the use of time-sharing : a system of indexes with document research with the help of descriptors (signaled and analytical editing of the index-loan files, borrowed lists, editing of lists for general diffusion and/or relative to this utilization in real time, is still an objective to be reached (IV 7 page 44).

The integration of the system into a network (IV 8 pages 45, 46) seems to be the best solution to make automation profitable.

## Suggestions for the creation of an automated film library

We will keep, almost in-extenso, this part of the BETEA report, (pages 47 to 56). We must mention that the evaluations (cost, personnel) are accurate on the following basis : study made in France in 1975 on the automation of a film library project of the same type as AVS (Audio Visuel Santé) : 4000 documents inventoried of which 2 000 serve periodically, 500 new documents yearly, diffusion in France (list of users page 5 of the BETEA document) and outside of France : or of the SFRS (scientific film research service) : production (or production aid) of more than 500 films, 1400 loans in 1973-74, 1100 titles and 7 000 copies, about 50 new copies per year.

### I - WORK METHOD

A service automation study like a film library one, is carried out in several stages :

- the documentalist establishes a logic and formal description of the work to be done.

He can dissociate the different operations which can be automated reading, controling, translating, classifying, researching, calculating, printing. Given the data input in the computer he can anticipate additional results which can be obtained.

- he presents his study to the analyst, who can bring out a few badly defined points.
- the analyst then studies the technical aspects of the realization.

He then defines a special procedure of transition by semi-automated data-processing.

He must follow a few principles :

- Results of at least equal quality as the old method must be obtained.

- maximize the facilitation of utilization by the users.
- give more results then the preceding method.
- finally, the analyst and the documentalist examine the project together, from which they deduce :
- the principles of a new procedure
- if needed, the special procedure of re-instauring the old method or of the transitional period.

## II - PRELIMINARY OPERATIONS NECESSARY BEFORE THE LAUNCHING OF THE SERVICE ; PERSONNEL NEEDED

1° - Definition of users' needs
2° - Delimitation of fields to be covered
3° - Acquisition and inventory of films
4° - choice of the indexation language

The first three stages could be done by a work group which would be made up of :

Group A

A full time personnel, including :

- two documentalists (having already acquired experience in data-processing)
- a film librarian
- an analyst
- an education administrator (having experience in the use of films for education).

Of a personnel employed on a part time basis, made up of people already employed in film libraries (A.V.S. and S.F.R.S), but temporarily free).

Eventually outside people invited to participate in certain stages of the work. The life span of this work group is about one year.

The fourth stage can start only when the previous three are well advanced, after a minimum of six months.

A work group of four people (group B) can be employed full time for a duration of six months, made up of :

Group B

- two documentalists (same as those of group A)
- an education administrator (same as the one in group A)
- a scientist (with a wide scientific knowledge, and preferably a medical speciality for A.V.S.).

The two groups defined above (group A and B) could be members of the Viewing Committee, whose role will be to analyse the films. This work risking to be of a long duration, it could be divided up in the following manner :

- two times a week for 6 months, a meeting of the Viewing Committee which will study on a basis of 75 % old films 25 % new films of the inventory.

- once a week after that, and in 9 regular manner, a meeting of the committee for films that are just coming out.

This committee must conduct open meetings and signal these meetings to available people of the services.

It can also invite outside personalities, specialists in fields covered by the films.

## III - PROBLEM OF COST EVALUATION

The calculation of costs of computer work is very complex.

All "serious" evaluations can only start when all data become suficiently precise, and when the automation choices are made. Things differ greatlly according to the steps of the documentary chain that was chosen to be automated.

We can concider that in preliminary calculations there are divergences of from 1 to 10 due to :

- the differences in calculation methods (something not to be neglected)
- the differences in the prime costs
- the lack of precision in the basic facts.

It is then the role of group A to analyse the facts with the strictest means possible, and to partially evaluate the operation costs, within its possibilities.

We can forsee a special commission, detached from the other two, for cost studies, and made up of at least :

- one data processor
- one administrator
- one documentalist

It could work for a period of one month, when the work of group A is entirely finished.

The difficulty in grasping the cost in matters of operation at each one of the documentation levels is also due to :

- the mode of programmation of documentary applications
- the exploitation method of the computer
- the methods of charging for indirect costs resulting from the integration of data-processing :

Costs of office space, its furnishing must also be taken into account.

We can calculate the hourly cost of the computer (T)from the ratio of the total expenses of exploitation (c) to the number of operating hours (H) : $T = \frac{c}{H}$

- in the case of mono-data-processing, the intervention cost (P), of the computer is the product of time spent (h) by hourly cost (T) : $P = h \times T$

- in the case of multi-data-processing, the hourly cost of each organ must be determined :

  central and accessory units

- the costs of a documentary input could vary from 35 to 120 F per document.

- printing costs vary according to the number of bulletin and index prints.

An average cost for publication of an analysis bulletin, for an example of 800 analysis of 1000 characters, could be estimated at 20,000 F.

- the data-procesing costs for the works is fixed.

The creation of a complete ensemble of documentary data processing varies from 0,6 to 3,6 millions F, depending on the complexity of the system. The average cost varies between 1.5 and 2 millions F.

- the variable costs are in function of the volume of prestations, of the documentalist costs who :

- recieve the orders
- define the research equations
- sort out the printed references by computer

These costs vary from 1 to 5 or 10 depending on the services.

Difference in costs between "differed time" and "direct"

The cost of differed time depends on :

- the data input time
- the salary of the operator
- the allowance for the depreciation of materials upkeep, renting
- necessary supplies (cards, magnetic tapes, power)
- other costs (office, lighting etc.)

The prime cost depends on :

- the annual number of notices to be input (N)
- the average number of characters per notice (n)
- the input speed (V)
  (number of characters per hour)
- purchase price of input equipment (P)
- yearly social security salary costs of an operator (0)

It is based on :

- the maximum use of input equipment
- the paying off of the equipment in 5 years
- annual upkeep costs (5 % of purchase price)

Formula for calculation :

E = number of necessary input equipment : $= \dfrac{n \times N}{V \times 1650}$

S = average saturation of these input equipments $= \dfrac{n \times N}{V \times 1650 \times E}$

The cost in "direct" must take into account for example (average cost) :

| | |
|---|---|
| - the duration of the immobilization of the console for 30 min. at 0,7 F/min | 21 F |
| - for the execution time in the central memory for 1 min at 48 F/min | 48 F |
| - for the time of the channel use for 1 min at 24 F/min | 24 F |
| Thus, for one question : | 93 F |

This is to be added to the preceding costs of "differed time".

## IV - MATERIALS AND PERSONNEL

The data-processing material is at least a computer of 128 K octets of memory equiped with :

| | |
|---|---|
| classic accessories | card decoder tape unwinding apparatus disc units |
| output accessories | keyboard (at least in the beginning)<br>viewing terminal (at a latter-stage) |

Evaluation of the purchase price :

- magnetic coder mono-keyboard 41,000 F to 61,000 + tax
- tape perforation apparatus and associated tape decoder 30,500 F to 46,000 F + tax.

- converter for differed time of the perforated tape into magnetic tape 82,000 F to 102,000 F + tax

These are only indications of the average prices.

Renting of the material can be concidered :

- monthly rental of the computer and classic accessories
- rental of the disc units and high speed printer
- in case of failure, investement in an alpha-numeric viewing console.

Non data-processing materials permits the stockage and manipulation of the documents.

It must include :

- storage areas for film conservation having the proper temperature and hygrometric conditions
- an adequate furnishing of the office interior and also :
- a reprography studio
- micro-cards or microfilms

The personnel necessary for the operations of such a system must be adapted to the needs.

We can approximatively concieve of :

- five people to operate the computer
- twenty people to carry on the administration of the documents, their analysis and research

A hypothesis for the evaluation of the salary of an operator can range from 30,000 F to 45,000 F per year.

## DRAFT VERSION OF QUESTIONNAIRE FOR THE CONFERENCE IN OCTOBER I976 ( EASTERN EUROPE )

### A. DIRECTORY ON AV MEDIA

It is intended to compile a regional directory on sources for information on AV Media ready for the conference in October I976. Will you kindly, therefore, answer the following questions concerning data of that directory :

1 Institutions responsible for research and design of educational AV materials in your country. Please give names, addresses, educational level and/or subject-field :

2 Institutions, firms etc. responsible for production of educational AV materials in your country. Please give names, addresses, educational level and/or subject-field :
Please send catalogues, if possible.

3 Institutions, firms etc. responsible for internal distribution of educational AV materials, if not concurring with A.2 : Please give names, .....Please send catalogues,.....

4 Agencies etc. responsible for external distribution of educational AV materials,........
If restricted to types of media or fields, please indicate.
Please give names,.......
Please send catalogues,........

5 Committees and groups in your country responsible for middle-term and/or long-term curriculum development.

5.1. Name of committee
Subject-field
Level of education

5.2. Address

5.3. Responsible for

## B. EXCHANGE AND CO-OPERATION

I. Are there any general agreements between your country and others under which exchange of materials and/or curriculum development are already taking place or could take place ?
If so, please give the names of the partners :

2. Within those or other agreements are you at present co-operating in the design and/or production of educational AV materials ?
If so, please indicate subject-field and level of education :

## C. STANDARDS

I. Please mark the formats and standards used most widely in your country for types of educational AV materials in the list below :
List to follow

2. Are there any lists of educational terminology (lists of descriptors thesauri etc.), lists of AV media terms and/or lists of equivalents to those terms from other languages.
If so, please send a copy, if possible.

## D. COMPUTER BASE

Are there any computers used at the moment or planned to be used in information systems of your country that also could take care of AV media documentation ?

## E. REGIONAL DATA BANK

In order to make it possible to discover what AV teaching materials exist in each country, it is necessary to build up a regional information bank.

I. The following criteria are proposed for selecting AV materials that should be reported to the regional information bank :
each item :

I.I Should contain ideas or techniques that would be of interest to curriculum and materials designers in other countries,

I.2 Should be suitable for adaptation for educational use in other countries,

I.3 Should be suitable for educational use in other countries without adaptation.

In addition, a copy of each item must be available either for inspection or for permanent requisition by other countries, under suitable arrangements

Have you any other criteria to propose ?

2. State the quantities of materials (separate titles) in your country that could be reported to a regional information bank according to the above criteria

| MEDIUM | NUMBER AVAILABLE NOW | ESTIMATED ANNUAL INCREASE |
|---|---|---|
| Film I6 mm | | |
| Filmloop | | |
| Slide set or fims trip | | |
| Overhead projector transparency | | |
| Sound recording | | |

3. It is proposed to include in the regional information bank the media listed in 2.
   If your wish any other types of materials to be included, give details with reasons.

4. It is proposed that the regional information bank will contain for each item the following data elements : title ; design institution + author ; production instituion ; data of production ; distributing institution ; physical description (including medium, technical details, running time) ; summary of contents ; language of sound track or captions ; target audience (age, educational level) ; intended use (for example : lecture illustration, group study) ; international interest (according to the criteria in I) ; associated teacher's notes or students'booklets) ; reference to research and evaluation reports. Do you wish to delete any of these data elements or to add new ones ?

5. It is proposed that, if possible, the regional information bank for individual materials should be planned to be compatible with systems for the documentation of educational books, periodicals and research reports. Have you any special requirements in this connection ?

## F. EXCHANGE AND CO-OPERATION

I. When a curriculum or materials design group have identified an item that they wish to examine or use, they will normally obtain it by direct application to the national distributing organisation.
What actions would you like to be taken to make this process easier ?

2. There are some important items of which the national distributing organisation will not be able to make copies available to all other countries in this way. It is therefore proposed to set up a regional reference collection of such materials for inspection (not for copying).

    2.I Would you be prepared to donate two copies of each item selected from your country to the regional reference collection, free of charge, for inspection only ? Yes/no
    If no, would you be prepared to sell copies to the regional reference collection at a special rate ? Yes/no

    2.2 Would you be prepared to make some annuel payment towards the cost of managing and running the regional reference collection ? Yes/no

4. What problems do you anticipate if a country wishes to purchase an item for use, whether adapted or not ?
(Note : a special study is being made of the copyright problem).

    4.I In order to rationalize the regional design and production of materials , it is necessary that each country should know about the current design and production in all the countries of the region and about future plans.
    Are you prepared to supply to the regional information bank information about your current and future plans
    for design and production ? Yes/no
    If yes, under what conditions ?

    4.2 It is proposed regional curriculum groups should be given the responsibility for studying the current and planned availability of materials, and for identifying gaps that should be filled by national effort or by co-operative activity.
    What arrangements do you think are needed to make this possible ?

5. What are your views on the organisational and management arrangements that will be needed to make possible the proposals outlined in this questionnaire ?

CHEKLIST for preparation and operations of an information system on AV-materials

| | (1) International | (2) Regional | (3) Multilateral | (4) Bilateral | (5) National | (6) Subnational | (7) Institution |
|---|---|---|---|---|---|---|---|
| A. Preparation of the system | | | | | | | |
| I Tentative assessment of user needs | | | | | | | |
| 2 Decision for or against compatibility with data from literature and from research and development reports | | | | | | | |
| 3 Decision for or against inclusion of data on non-book materials other than AV-materials | | | | | | | |
| 4 Development and/or adaptation of | | | | | | | |
| 4.1. selection criteria | | | | | | | |
| 4.2. thesaurus/descriptors | | | | | | | |
| 4.3. worksheet | | | | | | | |
| +5 Development and/or adaptation of software for | | | | | | | |
| +5.1 establishing databank | | | | | | | |
| +5.2 lists | | | | | | | |
| +5.3 indexes | | | | | | | |
| +5.4 library-card production | | | | | | | |
| +5.5 updating databank | | | | | | | |
| +5.6 retrieval | | | | | | | |
| +5.7 SDI | | | | | | | |
| +5.8 thesaurus management | | | | | | | |
| +5.9 bridging software | | | | | | | |
| B. Operations with or without computer | | | | | | | |
| I Preparing input | | | | | | | |
| I.I selecting materials | | | | | | | |
| I.2 analyzing materials | | | | | | | |
| I.3 filling in worksheets | | | | | | | |
| +I.4 preparing machine-readable information carriers | | | | | | | |
| +I.4I punched tapes | | | | | | | |
| +I.42 magnetic tapes | | | | | | | |
| +2 Input into computer | | | | | | | |
| +3 Data processing for output | | | | | | | |
| 4 Output and/or machine output | | | | | | | |
| ++4.I lists with indexes | | | | | | | |
| ++4.2 library-cards | | | | | | | |
| +4.3 direct search via terminal | | | | | | | |
| +4.4 SDI | | | | | | | |
| +4.4 Thesauri/descriptor lists | | | | | | | |
| +4.5 magnetic tapes | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **C.** Dissemination | | | | | | | |
| 1 Preparing dissemination | | | | | | | |
| 1.1 user studies | | | | | | | |
| 1.2 cost-efficiency studies | | | | | | | |
| 1.3 policy decisions | | | | | | | |
| 2 Actual dissemination | | | | | | | |
| 2.1 lists with indexes (printed) | | | | | | | |
| 2.11 with national titles | | | | | | | |
| 2.12 with regional titles | | | | | | | |
| 2.13 ad hoc title lists | | | | | | | |
| 2.2 lists with indexes (micro=fiches) | | | | | | | |
| 2.21 with national titles | | | | | | | |
| 2.22 with regional titles | | | | | | | |
| 2.23 ad hoc title lists | | | | | | | |
| 2.3 library-cards | | | | | | | |
| 2.31 with national titles | | | | | | | |
| 2.32 with regional titles | | | | | | | |
| 2.4 survey reports, trend reports, progress reports | | | | | | | |
| 2.5 prepackaged information for target groups<br>2.6 bulletins | | | | | | | |
| 2.7 long-distance retrieval at central databank via terminal | | | | | | | |
| 2.8 decentralized network of databanks for long-distance retrieval and other data processing operations. | | | | | | | |
| **D.** Evaluation | | | | | | | |
| 1 by feedback from users | | | | | | | |
| 2 by cost-efficiency studies | | | | | | | |
| **E.** Policy decisions on improvements of the system | | | | | | | |